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SIX ENGLISH ECONOMISTS

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To
JAMES THOMPSON
AND
GEORGE HERBERT SANKEY
Two CAPTAINS OF INDUSTRY.

WHOSE WIDE EXPERIENCE AND GREAT SAGACITY
HAVE BEEN OF CONSTANT SERVICE TO THE WRITER
OF THIS LITTLE BOOK.

PREFACE

A GREAT number of men and women read Economics at the Universities, an even greater number, perhaps, study the science by means of correspondence classes in their own homes. It is easy enough for the former to remember the famous saying of Marshall that economic doctrine "is not a body of concrete truths, but an engine for the discovery of concrete truths." It is not so easy for the latter to realise this, working at economics as they do, as one amongst a variety of subjects prescribed for some professional examination. Indeed, as one examines their answers one sometimes recalls another saying of Marshall's about information that has been "loaded into people's minds as goods are loaded into trucks."

Pure economic theory, as it is sometimes taught, is a mere abstraction neither more nor less edifying than the formal logic in which an earlier generation was trained. That logic was quickly learnt and almost as quickly forgotten. If it did no harm, it did very little good. Only when form is filled with content, when abstract theory is brought into vital contact with concrete fact, do we escape the temptations which beset the scholastic who discussed such questions as how many angels could balance themselves on the point of a needle.

We who belong to a generation dominated by Marshall can never forget that the only study of economics that really matters is that which enables us to understand some aspect of the individual or society a little better than otherwise we should. We remember also that Marshall began his own work with inquiry into a certain subject because "the chief facts relating to it can be obtained from printed documents." There seems little doubt that the wisest course for the young student, ignorant as he is bound to be of the concrete facts of life, is to read as much economic history as he can. There is, however, another way by which he may avoid some of the pitfalls of abstraction: to watch a master craftsman dealing with the material that lies to hand.

This little book seeks to give a picture of certain great English economists in action, endeavours to show what manner of men they were, what problems they faced, and what results they obtained. I have called them "English economists," despite the fact that the epithet "English" may arouse some criticism beyond the Tweed. I am well aware that the greatest of economists was a Scotsman, that the man whom many rank next to him was a Jew; but unless one is

to imitate the Germans and build up cumbrous expressions, it seems difficult to find a single adjective which will include at once the Scotsman, the Englishman, and the Jew.

In any case, however, we may describe them; they are men whose words and deeds are well worthy of attention. Sir James Mackintosh said: "I have known Adam Smith slightly, Ricardo well, and Malthus intimately. Is it not something to say for a science that its three greatest masters were about the three best men I ever knew?" and what is true of Adam Smith, Malthus, and Ricardo is equally true of Jevons, Mill, and Marshall. They are not only men of great ability; they are one and all men of the loftiest moral character.

At the end of the book I have drawn up a very simple bibliography. For young students—and this book is primarily intended for young students preparing for professional examinations—a bibliography can scarcely be too short. To the books mentioned in this bibliography, and to many others, my obligations are obvious. But there are two men to whom my debt is of a special character. First, the late Professor Smart, not only for his *Economic Annals* and his *Introduction to the Theory of Value* associated with the Austrian school, but also for much personal kindness and encouragement. Next, Professor Gide, whose history of economic doctrine has never been far from my hands, whose *Political Economy* I read with profit and pleasure when a lad, who in the midst of a busy life, has found time to assist me by correspondence on points on which I consulted him.

I am further indebted to the editor and proprietors of *The Examinee* for permission to make use of certain matter which first appeared in the pages of that journal, to Miss K. O'H. Pearman for clerical help in this and other work, and to my friend the Rev. A. G. Matthews, formerly exhibitioner of New College, Oxford, who has kindly read the proofs.

In view of the fact that some of those who will use this book are at a distance from public libraries, I have made the notes somewhat fuller than they would otherwise have been.

T. F. KINLOCH.

LITTLESALL, SHROPSHIRE.

June 1927.

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SYNOPSIS

(1) ADAM SMITH (1723-1790)

(A) THE MAN

The greatest economist—Birth—Glasgow University—Oxford—Lectures in Edinburgh—Professor of Logic at Glasgow—Professor of Moral Philosophy—The Political Economy Club—The Select Society—Theory of Moral Sentiments—Tutor to the Duke of Buccleuch—France—*The Wealth of Nations*—Commissioner of Customs for Scotland—Death.

(B) THE BOOK

Wealth the product of human effort—Division of labour—Economic activity ruled by instinct—Self—Interest—Optimism—A plea for freedom—Reasons for success of *Wealth of Nations* :—timely, fine style—a summary of all previous economic writings.—Limitations : faulty doctrine of value and distribution—written before certain great inventions—stresses negative side of freedom—magnifies individual at the expense of society.

(2) THOMAS ROBERT MALTHUS (1766-1834)

(A) THE MAN

His father—School—Cambridge—Takes orders—His Essay—Foreign tour—Haileybury—Writings—Claims to distinction.

(B) THE ESSAY

(a) First Edition : Godwin—Law of population—Natural instinct—Purpose of evil. Criticism : man is more than a hungry animal—Malthus' psychology imperfect—Pioneer with broad view of the forest.

(b) The Essay, 2nd Edition : Contrast between Owen and Malthus—The new hypothesis—The thesis—Law of population at work among civilised and uncivilised—Positive checks—Preventive checks—Problem of population postponed not solved—Neo-Malthusianism—"Another Malthus needed."

(3) DAVID RICARDO (1772-1823)

(A) THE MAN

Characteristics : Self-educated—A Jew—Cosmopolitan : Birth—Marriage—Stock Exchange—Reads *Wealth of Nations*—Letters to *Morning Chronicle*—Bullion controversy—Meets James Mill—*Principles of Political Economy*—Buys an estate—Enters Parliament—Advocates "Capital Levy"—*Protection to Agriculture*—Home life—Character.

(B) HIS SYSTEM

Deductive—Cosmopolitan—Ideas acquired in financial circles—Ignorance of history—Style—State of England in Ricardo's time—*The High Price of Bullion*—Reply to Bosanquet—Explanation of depreciation of currency—McCulloch's summary—Ricardo's plan of reform : His views on protection—His *Principles*—Distribution—Rent—Wages—Profits—Value—Theory of foreign trade—His place in history.

(4) JOHN STUART MILL (1806-1873)

(A) THE MAN

James Mill—Unique education—France—India House—The Utilitarian Society—Crisis—Logic—*Principles of Political Economy*—Influences affecting Mill—(1) Comte ; (2) French Socialists ; (3) His

wife. *Utilitarianism—On Liberty—In Parliament—Death—Autobiography.*

(B) THE PRINCIPLES

Style—A great summary—Modifies older views—A great system—"Economic Laws"—Mill's contributions to (1) Ricardo's doctrine of foreign trade; (2) Theory of wages; (3) Distribution—Theory and practice—Transitional position.

(5) WILLIAM STANLEY JEVONS (1835-1882)

(A) THE MAN

Ambitions—Place in history of economic doctrine—Liverpool—London, University College School—University College—Australia—Metereology—Economics—Returns to England—Graduates—Sends paper on Theory of Political Economy to British Association—Tutor at Owens College—Professor—Statistical Atlas—Fall in the value of gold—The Coal question—Logic—Walras—Professor at University College, London—Retires—Early death.

(B) HIS ECONOMIC THEORY

Criticises Ricardo and Mill—Value determined by demand—Mathematical method—Final utility—Exchange—Capital—Wages—Criticism of Jevons—Limitations of mathematical method—One-sided emphasis on consumption.

(6) ALFRED MARSHALL (1842-1924)

(A) THE MAN

Marshall the greatest English economist—His qualifications—Clapham—Merchant Taylors'—Cambridge—Clifton—Returns to Cambridge—Abandons Physics for Metaphysics—Ethics—Economics—Visits United States—Bristol—Balliol—Professor at Cambridge—The Royal Economic Society—Economics Tripos—Influence as a teacher—Evidence given before Royal Commissions—Works.

(B) THE ECONOMIST

Great learning—Wide knowledge of commerce and industry—Generous in appreciation of other workers—His style—His view of economics—Changes introduced by Marshall: (1) Idea of development; (2) Combines results of "deductive" and "historical" schools; (3) Theory of value determined by production and consumption—Specific contributions to economic theory (1) Monetary; (2) General—His place in Economics.

CHAPTER I

ADAM SMITH (1723-1790)

MEN argue as to who is the second greatest economist the world has seen ; there can be no dispute as to who is the first. They find it difficult to arrange all other economic writings in the order of their importance ; they are agreed as to which book must head the list. Adam Smith was a man of genius ; the *Wealth of Nations* is at once one of the greatest books in the English language, and by far the greatest work on its subject in ours or any other tongue.

It is, of course, impossible to explain a man of genius ; yet it is easy to see how the whole course of Smith's life fitted him to write his immortal book. Born in 1723 in the little Scottish town of Kirkcaldy, his father was a solicitor who never practised, but held a comfortable Government post in the Customs. His mother, to whom he owed as much as any famous man has done, was the daughter of a landed gentleman. At the age of fourteen he went to Glasgow University where he was greatly influenced by two of his professors : Simson a mathematician of European fame, and Francis Hutcheson, Professor of Moral Philosophy. Hutcheson—" the never-to-be-forgotten Hutcheson " as Smith described him in after years—who was the first man in Scotland to give up the practice of lecturing in Latin, was one of the most inspiring teachers as he was one of the most gifted and eloquent speakers of his time. To him Smith owed some of his most cherished convictions with regard to political and religious liberty in general, and some of his most famous opinions with regard to liberty, value and labour in economics in particular. From Glasgow Smith went to Balliol College, Oxford, where he remained in constant residence for six years. The cost of the return journey from Oxford to Kirkcaldy was £20, and Smith's exhibition of £40 per annum was not sufficient to admit of an expensive vacation. Gibbon,* who went up to Oxford twelve years later, has left a scathing account of the Oxford of those days, when professors had ceased even to pretend to lecture,

*Edward Gibbon, (1737-1794), author of the *Decline and Fall of the Roman Empire*, our greatest historian ; educated at Westminster, and Magdalen College, Oxford, to which he went when he was fifteen. " I arrived at Oxford with a stock of erudition, that might have puzzled a doctor, and a degree of ignorance, of which a schoolboy would have been ashamed." " To the University of Oxford I acknowledge no obligation." " In the University of Oxford, the greater part of the public professors have for these many years given up altogether even the pretence of teaching." (*Autobiographic Memoirs of Edward Gibbon*, Chandos Classics, pp. 22, 24, 25.)

and tutors apparently had nothing of any value to teach. In the *Wealth of Nations*, Smith himself says harsh things of his Oxford teachers ; but the very fact that they did so little for him, the further fact that, as a Scotsman, he was by no means a popular member of his college, may have been a blessing in disguise, for he worked hard, read widely and deeply. To the end of his days he was a fine Greek scholar, and to his knowledge of the classics he owes not a little of that careful accuracy which marks his work. He knew the Italian poets, and, partly to improve his English style, spent not a little of his time in trying to translate some of the French classics.

On leaving Oxford, Smith made a short sojourn in his native town, after which he went up to Edinburgh where he gave a series of lectures on English literature. These lectures were delivered in the University buildings and attracted a large and enthusiastic audience. As Smith burned his MS., it is impossible to know what he said ; but there is reason to believe that his views were typical of the 18th century, and well deserved the condemnation they received from Wordsworth. The point of interest is, however, that Smith had already learnt to speak in such a way as to win the ear of an academic audience. At the early age of twenty-seven, he was made a professor in Glasgow University. At first he held the chair of logic, but soon after he was transferred to the chair of moral philosophy. For thirteen years—" the most useful and, therefore, the happiest and most honourable in my life "—he discharged the duties of a college professor. The course of lectures which he gave was divided into four parts : natural theology, ethics, jurisprudence (which included an account of the rise and progress of government in Europe), and politics (which included a discussion on commerce, finance, and the relation of the state to the army and the church). Readers of the *Wealth of Nations* have no need to be reminded how much of the material dealt with in these college lectures appears in that book. Smith was a most successful lecturer, and there can be no doubt that during his stay in Glasgow, and largely because he was determined to interest his students in their work, he developed, if he did not actually acquire, those great qualities which strike every reader of his book.

But Adam Smith was more than an academic lecturer and a gifted college administrator ; he took the keenest interest in the affairs of the city in which he lived. Glasgow was, in those days, but a town of 23,000 ; its extraordinary development was still to come. Yet it was a prosperous place : " There is

not a beggar to be seen on the streets, the very children are busy," is the description given by a contemporary observer. Glasgow was the great emporium to which came the tobacco of Virginia. There it was transhipped and distributed to the ports of the Baltic and the North Sea. Glasgow merchants knew by bitter experience the drawbacks and defects of British colonial policy. In the Political Economy Club Smith met those merchants, discussed their business with them, and ended by converting the whole city—so it is said—to his views on Free Trade. It is obvious how much Smith owed to this intimate association with able men of business. Year after year he was able to study economic facts at first-hand.

Throughout his stay in Glasgow, Smith was a constant visitor to Edinburgh, where, thanks to his friend David Hume,* he knew the most interesting men of his time. He was a member of the "Select Society," a club consisting of country gentlemen, professional men, and men of letters. At this club, economic questions, in particular those relating to land, were frequently discussed. For thirteen years, then, Smith was not only lecturing on economic questions, he was discussing them with the ablest men of affairs in Scotland, and this no doubt explains the fact to which attention has been so often drawn, that many of the views attributed to himself were derived from other men. He learnt from others, absorbed their views, assimilated them and in due course gave each its proper place in that great work which in after years he was to build.

In 1759, he published his *Theory of Moral Sentiments*, an ethical treatise which immediately won for him a European reputation. When he went to London to superintend its publication, he met Burke,† Gibbon, Reynolds,‡

*David Hume, (1711-1776), in his own day famous as an historian but now chiefly remembered by his essays and his philosophic writings. He has been called "the typical empiricist," an empiricist being one who maintains that the only source of knowledge is experience. Hume is a sceptic, regards the "ego" or "self" as a mere stream of sensations. He is probably our greatest philosopher. It was through reading Hume's brilliant and provocative writings that Kant, the greatest of modern thinkers, was "awakened out of his dogmatic slumbers." Hume and Adam Smith were on terms of the greatest intimacy.

†Edmund Burke, (1729-1797), born in Ireland, great Whig statesman and orator, impeached Warren Hastings, whose trial began in 1798; viewed the French Revolution with grave misgivings. This eventually led to his breach with Fox.

‡Sir Joshua Reynolds, (1723-1792), famous portrait painter. His portraits of children are especially admired. His greatest portrait is probably that of Mrs. Siddons as "The Tragic Muse." Was first president of the Royal Academy.

Garrick,* and speedily became their friend. There can be little doubt that to constant intercourse with brilliant men of very different professions to his own, Smith owed much of that broadminded cosmopolitan spirit which is so pronounced in his work.

In 1763, Smith resigned his chair at Glasgow and became tutor to the young Duke of Buccleuch. With him he spent a year in the South of France, where he began to write the *Wealth of Nations*; six months in Switzerland, where he met and admired Voltaire†; and a year in Paris. He had the entrée to the most exclusive society of the day, to great salons which have become famous, to statesmen and men of letters, whose names were on every lip; above all, to that famous group of patriots called Physiocrats‡ who regarded the state of France with such deep concern, who were so eager for social and economic reform. To those Physiocrats—the most brilliant economists of the day—and above all, to their great leader Quesnay, Smith owed an enormous debt. But he was always more than the mere disciple of Quesnay. On certain subjects he had long reached similar conclusions for himself.

On his return from France, Smith settled down in Kirkcaldy to finish his book; six years later, he set out for London with

*David Garrick, (1717-1790), son of an army captain, intended for the Bar, became the most famous of all English actors, wonderful mimic, great in tragedy and comedy; buried in Westminster Abbey.

†Voltaire, (1694-1778), great wit and stylist. After being imprisoned in the Bastille lived for a short time in England; friend for a time of Frederick the Great, in whose palace at Potsdam are several memorials of him; settled down at Ferney near Geneva in 1760, where he built a model village and church, and where he lived till his death. One of the most voluminous and brilliant of French writers, he excelled in many fields, in tragedy, (*Zaire, Merope, Mahomet*), in history, (*Charles XII, Siècle de Louis XIV*), as a novelist, (*Candide*), above all, perhaps, as a critic, (*le Temple du goût*). In addition he wrote epic poetry, (*la Henriade*), and philosophy, (*Lettres philosophiques*). At the height of his fame he exercised an enormous influence over all Europe. For Voltaire Adam Smith had the highest admiration. "There is but one Voltaire," he said.

‡The Physiocrats, a group of French economists who flourished about the middle of the 18th century, are sometimes regarded as the founders of political economy. They opposed the principles of mercantilism, and originated the famous expression "laissez-faire, laissez-passer." They maintained that agriculture, and agriculture alone, was productive, afforded what they termed a "produit net" or surplus. Manufacture, on the other hand, merely changed one form of material into another and was "unproductive." The leader of the Physiocrats was Dr. Quesnay, to whom, had he lived longer, Adam Smith would have dedicated the *Wealth of Nations*. Perhaps the most famous member of the school—though his views were not so one-sided as Quesnay's—was Turgot, the famous statesman. See Higgs' *Physiocrats*, see also Gide and Rist, *A History of Economic Doctrines*, pp. 1-50.

his manuscript, as he thought, complete. But he found fresh facts and problems, especially in connection with colonial administration, and spent three more years recasting his work. At length, after he had spent twelve years in writing it, and another twelve years in thinking about it before he put pen to paper, the *Wealth of Nations* was given to the world. Its success was instantaneous. It was translated, read, and discussed in every civilised country of the world. It affected the councils of ministers of state and, if Buckle* exaggerates, as no doubt he does, when he says that: "In its ultimate results it is probably the most important book that has ever been written," that "it has done more towards the happiness of man than has been effected by the united abilities of all the statesmen and legislators, of whom history has preserved an authentic account," yet it remains, and seems destined to remain, the corner stone of all economic thought.

Material reward was not long in coming. In 1778, Lord North† made Smith Commissioner of Customs for Scotland. For twelve years he held the appointment, living in Edinburgh in easy circumstances, receiving distinguished visitors from abroad, honoured and admired by all at home, not only for his great qualities of mind, but also for his generous and kindly character. He died in 1790.

II.—THE WEALTH OF NATIONS (1776)

(a) *Main Doctrines*

The *Wealth of Nations* begins with this sentence "The annual labour of every nation is the fund which originally supplies it with all the necessaries and conveniences of life which it annually consumes, and which consist always either in the immediate produce of that labour or in what is purchased with that produce from other nations." Without disparaging the part played by the forces of nature Smith maintains that the source of all wealth is human toil. He goes on to show, in a passage which is often quoted, that "without the assistance and co-operation of many thousands, the very meanest person in a civilised country could not be provided, even according to, what we very falsely imagine, the easy and simple manner in which he is commonly accommodated." In this way he introduces the great doctrine on which his whole

The source of
Wealth

*Henry Thomas Buckle, (1821-1862), author of the *History of Civilisation in Europe*, Vol. I, 1857. Vol. II, 1861. Work left unfinished.

†Lord North, (1732-1792), favourite Minister of George III, Chancellor of the Exchequer, 1769. Prime Minister, 1770-1782.

(1) Division of Labour system is based. *The division of labour*. "With the utmost effort" he tells us, "a man might make one pin a day but certainly could not make twenty," whereas in a small factory which was by no means well organised he had seen "ten men make among them about twelve pounds of pins in a day." This principle of the division of labour obtains throughout the whole range of human activity. *Man differs from the beasts*, and is able to perform the enormous amount of work which is done in the world simply because he has learnt to co-operate with his fellows. Instead of making the whole of a certain article a workman specialises in making one part of it. He thus acquires greater dexterity in the performance of his task, saves time by ceasing to move from one occupation to another, and discovers improvements which more readily suggest themselves to one entirely engaged in one form of work. There are two factors however which limit the extent to which the principle of the division of labour can be carried. One is the extent of the market, the other the quantity of capital available. "When the market is very small no person can have any encouragement to dedicate himself entirely to one employment for want of the power to exchange all that surplus part of the produce of his own labour, which is over and above his own consumption, for such parts of the produce of other men's labour as he has occasion for."

(2) Economic activity governed by instinct

When we ask how and when this division of labour came into being Smith has a characteristic answer. It is "not originally the effect of any human wisdom, which foresees and intends that general opulence to which it gives occasion." In other words it is not the invention of some particular statesman who persuaded men to adopt it; like Topsy it simply "grewed." It came into existence through the action of millions and millions of men operating through centuries and centuries of time. In the last resort it is due to self-interest. "Man has almost constant occasion for the help of his brethren, and it is in vain for him to expect it from their benevolence alone. . . . It is not from the benevolence of the butcher, the brewer or the baker that we expect our dinner, but from their regard to their own interest. We address ourselves not to their humanity, but to their self-love, and never talk to them of our own necessities, but of their advantages." Instinctively then man looks after his own interests, instinctively if he has something to offer he seeks to exchange it for something in another man's possession which he desires, instinctively he discovers a medium, money—which enables him to make

Self-interest

exchange more readily, instinctively he desires "to better his condition." The principle which prompts us to save, "is the desire of bettering our condition, a desire which, though generally calm and dispassionate, comes with us from the womb, and never leaves us till we go into the grave." To instinct, then, the acquisition of capital is ascribed; and it is instinct of a kind which settles the quantity of goods produced. "The quantity of every commodity brought to market naturally suits itself to the effectual demand," supply adapts itself to demand. It is so with population it is so with money—"the great wheel of circulation." In the making of wealth then man is governed, instinctively governed, by the principle of self-interest. That there are other sides to his character Smith would be the last to deny. Did he not write a treatise on the Moral Sentiments in which he showed the large part played by sympathy? Man's economic activities are not his sole activities; none the less the fact remains that when engaged in the pursuit of wealth his master-motive is and is likely to remain self-interest.

Smith was too great a man to preach the foolish gospel that this is the best of all possible worlds. So strong indeed is his sympathy with the labouring class that he has been accused of socialism. "Rent and profit," he said, "eat up wages and the two superior orders of people oppress the inferior one." He was far from satisfied with the distribution of "the national income." He was suspicious of manufacturers who had "generally an interest to deceive and even to oppress the public, and who accordingly have, upon many occasions, both deceived and oppressed it." He does not dogmatise, contents himself with saying that "most frequently" and "in a majority of cases"—not always—the interests of the individual and the interests of the society of which he forms a part coincide. In the last resort he is an optimist.

Moderate
optimism

Since he maintained that wealth is always produced when man's inherent instincts are allowed free play, it inevitably follows that Smith is the sworn foe of every form of artificial restriction. Before all else his work is an appeal for economic freedom. He is a Free Trader who desires that the barriers which divide one country from another should be broken down. He hates monopoly. As a rule the calmest and most reasonable of men he hurls anathemas against the East India Company. He believes in individual effort, in private enterprise. "No two characters seem more inconsistent than those of trader and sovereign." "Governments," he says in another place, are

(3) A plea for
freedom

"always and without any exception the greatest spendthrifts in the society."

(b) *Three Main Reasons for the Book's Success*

It is, as we have said, impossible to account for any work of genius, or to explain its influence on the world: yet it is by no means hard to see some factors to which the *Wealth of Nations* owed not a little of its success.

(1) A Timely Book

In the first place it appeared at what some men call the "psychological moment," which others term "the nick of time." Year after year merchant and manufacturer alike had chafed at the restrictions which Government imposed on trade. The Mercantilist* policy which had served England well enough in Tudor and Stuart times had long since lost any usefulness it once possessed. The *Wealth of Nations*—expressly written to overthrow Mercantilism, one of the most eloquent appeals for liberty ever penned—expressed the feelings which were latent in many hearts. Adam Smith was not a prophet who dwelt alone in the wilderness, brooding over ideas far in advance of those of his age. He led an attack, a magnificent attack, on evils which were widely recognised. He did for many what they could not do for themselves, gave adequate expression to their discontent with present conditions, and showed the way by which they might realise their hopes in days to come.

(2) Its style

The book owed much to its style. (a) The young students who attended Smith's lectures had no previous knowledge of economics. In view of this he made it his business not only to arrest and maintain their attention, but to express his ideas so plainly that they could be readily understood by all. He did not write out his lectures. He merely took notes into his class-room, fixed his eyes on one of his students, watched

*"We now know that it (Mercantilism) was not a body of definite doctrines, which arose suddenly, quickly overcame all minds, and after a time was wholly discarded: it was rather a tendency of thought and sentiment which had its roots in the far past; which never, even at the height of its power, completely dominated all minds, and which has not yet completely disappeared." (Marshall). At bottom, mercantilism is another name for nationalism. A strong centralised government controlled foreign trade; by stimulating exports and checking the import of manufactured goods, it was sought to gain a "favourable balance" of trade. It is no doubt true that the wisest statesmen did not altogether identify wealth with the precious metals: none the less, the whole policy was directed to acquiring as large stocks of the precious metals as possible. An ample supply of metallic money was essential for payment of troops, &c. See Marshall's *Industry and Trade*, appendix D, pp. 719-731, cf. *Economic History*, W. J. Ashley, Vol. I, pt. 2, p. 381. See also Schmoller, *Mercantile System*, pp. 10, 60, 61, quoted by Marshall.

him keenly, and refused to rest till the young man showed by his expression that he was not only interested in what his professor said, but had fully grasped the point he was trying to explain. For thirteen years Smith continued this practice, with the result that the *Wealth of Nations* is at once the most interesting and the most lucid book which deals with economic questions.

(b) The 18th century was the age of the coffee-house. In Smith's time there were no fewer than three thousand coffee-houses in London. Smith belonged all his life to social clubs, he was in the habit of meeting men of the most varied callings and talking with them. Then too, as we have already seen, he kept in close touch with Glasgow merchants and Midlothian squires. With all these people he discussed economic questions. In the best sense of the word he was a man of the world, he wrote and spoke like a cultured gentleman, avoiding technical terms wherever possible. The result of this is apparent on every page of the *Wealth of Nations*. There is nothing academical about the book ; it avoids the abstract and clings to the concrete ; it teems with illustrations drawn from everyday life ; its mastery of detail is only equalled by its sanity and judgment. It is not written in a jargon which only specialists can understand, it is expressly written for ordinary men. One may know German well, one may even know something of economic theory and yet find it difficult to read such a book as Menger's *Grundsätze** : no man of ordinary intelligence, even if he has never heard of economics, can fail to read the *Wealth of Nations* with profit and delight.

Just as there were poets before Homer so there were economists before Adam Smith. Yet he so completely mastered all the work that his predecessors had done that he completely superseded them. For us they have merely an antiquarian interest ; none but historians read them now. Whatever is true in any of their writings is to be found in Adam Smith. He took the bricks which other men had fashioned—bricks that lay scattered and almost useless on many fields—and out of these bricks made a building that will stand for ever. The more thoroughly Smith's work is examined, the more it is seen how much he owed to other men—even his celebrated canons of taxation are not original—yet this does not detract from his greatness. He saw, as his predecessors did not, the value of their discoveries ; gave each its proper place, and therewith

(3) Supersedes
all previous economic writing

*Karl Menger, Austrian economist. For an account of Menger's theory of value see Prof. Smart's *Introduction to the Theory of Value*.

new and lasting value, in the system which he built up with such marvellous skill.

(c) *Its Limitations*

(1) Imperfect
treatment of
value and dis-
tribution

In a certain sense Adam Smith is at once the father and the glory of political economy. As yet he has had no rival, and it seems unlikely that any will ever claim to be his peer. Yet he was far too great and humble a man not to know something of his own weakness. His disciples soon showed that his theory of rent, like his theory of wages, is inadequate. Long before the Austrian school of economists had elaborated their subtle doctrine of value, Ricardo pointed out that when Smith speaks of value he halts between two opinions. He did not handle the problem of distribution with the consummate mastery he showed when dealing with production. He never quite escaped the influence of the Physiocrats: to the very end he attached undue importance to agriculture. Whilst his criticism of those who "posed as masters of economic statecraft were amply justified he had," as Marshall says, "no means of anticipating the vast increase in the resources of Government, and in the honesty of public officials which began in the nineteenth century."

(2) Deals with
pre-factory
period

When the *Wealth of Nations* appeared in 1776 the spinning-jenny had been but twelve years in existence. James Watt* had had his patent for a steam-engine but seven years. Crompton's† "mule" and Cartwright's‡ weaving-machine were so to speak as yet in the womb of time. In other words the Industrial Revolution had only just begun. Adam Smith lived in the age of what is called Domestic

*James Watt, (1736-1819), born in Greenock, appointed mathematical instrument maker to Glasgow University. (Adam Smith was partially responsible for this), acted as civil engineer, made surveys for certain Scottish harbours and for deepening Forth and Clyde Canal, and Caledonian Canal. Is the inventor of the steam-engine, entered into partnership with Boulton, 1774, and carried on the Soho Iron Works, Birmingham, till he retired in 1800.

†Samuel Crompton, (1753-1827), born near Bolton. His father having died early, Samuel Crompton had as a child to assist his mother in working at her spinning-jenny: invented his "mule" in 1779, but being a very bad man of business made little money out of his invention which enriched so many. In 1812 Parliament in answer to a petition voted him £5,000. This he lost in business. In his later years he depended on a small annuity which some friends procured for him.

‡Edmund Cartwright, (1743-1823), Prebendary of Lincoln Cathedral, entered commercial life and invented the power-loom (1785), for which Parliament voted him £10,000.

Manufacture;* of the modern factory he knew nothing. In the very nature of things many of our conditions and the complex problems which they involve had not arisen. Some of his teaching therefore has little significance for us.

Striving as he did to strike off fetters from the hands and feet of industry, he attached perhaps too much importance to what may be termed the negative side of liberty: just as he magnified the individual and individual effort at the expense of society. Like other men of his age he spoke of a "natural order" with a confidence which we, trained in evolutionary ideas, cannot wholly share. The world has greatly changed since 1751 when Adam Smith first began to lecture in Glasgow University. Some of the statements he made to his students have ceased to hold good, and have already passed into that oblivion which awaits the words and deeds of almost everyone: others abide and will continue to influence men, whether they be students of economics or not, so long as the English language is destined to endure.

(3) Over-emphasises individualism and negative side of liberty

*The Domestic System. Prior to the Industrial era manufacture (Latin, manus, a hand; facere, to make) was often combined with agriculture and was mostly carried on in country towns. The "manufacturer" (craftsman) assisted by apprentices and occasionally by "journeymen" worked at home: he and his apprentices lived together, ate together, and worked together. He often played the part of father to his apprentices. The whole staff rarely exceeded 10. See Toynbee, *Industrial Revolution*, Chap. 4. W. C. Taylor, *History of the Factory System*, cf. the picture of a shoemaker and his apprentices given in Wagner's opera, *Die Meistersinger von Nürnberg*.

CHAPTER II

MALTHUS (1766-1834)

DESPITE his foreign looking name Thomas Robert Malthus came of good English stock. His grandfather was apothecary to King William and Queen Anne. His father Daniel Malthus (1730-1800) after leaving Oxford was called to the bar in 1749 and three years later married Henrietta Graham, the grand-daughter of a King's apothecary. At first the couple lived in Essex, but in 1759 they built a house near Dorking in Surrey. Here Daniel Malthus settled down to lead a country life. A highly cultivated man, he was almost entirely devoid of ambition; sociable in disposition, he yet at times preferred his own company to that of other people. He made few friends and his affections were almost entirely centred on his family circle. Yet he was on friendly terms with Rousseau*, who visited him in 1766 or 1767—they shared an interest in botany—indeed it has been said that he was Rousseau's literary executor. Daniel Malthus had eight children, two sons and six daughters. Thomas Robert was his second son and was born on 14th February 1766. He never went to a public school, but when thirteen was sent to live with Richard Graves, Rector of Claverton, near Bath; three years later he went to one Gilbert Wakefield. Wakefield had been a clergyman, a Fellow of Jesus College, Cambridge; but finding it difficult to subscribe to the thirty-nine articles, he withdrew from the Church of England, and from 1779-1783 kept an academy at Warrington which was primarily intended for dissenters, particularly for the sons of dissenting ministers. A third of his pupils, however, consisted of the sons of anglicans like Daniel Malthus, who attached more weight to sound scholarship than to dogmatic orthodoxy.

In 1783 Wakefield removed from Warrington to a place called Bramcote, near Nottingham. Malthus went with him; the other pupils did not follow for some little time, and during

*Jean Jacques Rousseau, (1712-1778), son of a watchmaker at Geneva. After leading a most irregular life, he reached Paris in 1741: denounced artificial civilisation and preached the doctrine of the return to nature; explained society by the "social contract" (1762), was one of the main leaders of the Romantic movement, and through his books, one of the forces which inspired the French Revolution. His best known work is his *Confessions*, in which he appears in a far from amiable light. His views on education are to be found in his *Émile* (1760). His novel, *La Nouvelle Héloïse*, was at one time famous. "He taught French mothers to nurse their own children—and sent his own offspring to a foundling hospital." In 1766-67 he was in England as the guest of Hume, but he quarrelled with him, as he did with so many others.

this period Wakefield was able to give all his attention to his distinguished pupil. When we remember that Wakefield was an exceedingly able man, that he was, moreover, one of the few teachers—rare in any age—who are more concerned to develop the mental powers of their pupils than to impress their own ideas upon them, we can understand why Malthus looked back upon this period of his life with gratitude.

In 1784 Robert Malthus entered Jesus College, Cambridge. His main attention was given to mathematics, but he found time to read English and French literature and to win prizes for Latin and Greek declamations. In 1788 he took his degree and was placed ninth on the list of wranglers. He took orders almost at once and proceeded to the degree of M.A. in 1791. In 1797 he became a fellow of his college.

Leaving Cambridge about 1796, he became a curate at Albury, Surrey, though none knew better than himself that he had neither the gifts nor the ambition to win high preferment in the church.

Soon afterwards he wrote his first pamphlet, *The Crisis*, and in 1798 published *The Essay on Population*. In the following year he went abroad. He felt that a second edition of the *Essay* would be an improvement on the first, if in the interval he could make himself acquainted at first hand with the social conditions which obtained in foreign countries. So he visited Germany, Sweden, Norway, Finland and part of Russia, the only European countries open at that time to English tourists. He was a good sailor, had a keen sense of humour, and was looked upon as a delightful travelling companion. Yet whatever he may have been in private, the touches of wit and humour which are evident in his earlier writings disappear in all those that follow them. Malthus had found his lifework and everything else henceforth had to take a second place. Ever eager to learn facts at first-hand he made several tours of investigation in later years. In 1806 he was in Wales, in 1817 in Ireland, in 1825 in France, and in 1826 in the Scottish Highlands.

Soon after his return from his first foreign tour he published a tract on the *High Price of Provisions* (1800). In December of that year Pitt* was in Cambridge. There he met Malthus, and it is thought that this meeting may have had something to do with the fact that in 1805 Malthus was appointed

*William Pitt, (1759-1806), second son of Lord Chatham : great statesman and orator : Chancellor of the Exchequer, 1782, Prime Minister when twenty-four ; from 1784 onwards was M.P. for Cambridge University.

Professor of History and Political Economy at Haileybury College.

In 1805 the East India Company determined to found a college in England and a college in Calcutta for the training of their cadets. The plan was that the cadet should receive his general education and an elementary training in oriental languages at Haileybury and that he should then proceed to receive the finishing touches in the college at Calcutta. At Haileybury the course extended over two years. The academical year consisted of two terms of five months, February to June and August to December. About forty students came into residence each year ; their ages varied from fifteen to two-and-twenty. The discipline left something to be desired, and the college had critics both in and out of Parliament. Yet in spite of this it endured until the East India Company ceased to exist in 1858.

Immediately before taking up his appointment at Haileybury Malthus married. He was thirty-nine and three children, a boy and two girls were born of the union. Malthus held his appointment at Haileybury till he died in 1834. He had gone to Somerset to visit his wife's old home, when he was stricken by a heart attack. He was buried in Bath Abbey. The inscription on the tablet, supposed to be the work of his friend Bishop Otter, describes him as " one of the best men and truest philosophers of any age or country," speaks of " his serene and happy life devoted to the pursuit and communication of truth " ; and pays tribute to the " spotless integrity of his principles, his urbanity of manners and his tenderness of heart."

His life at Haileybury was singularly happy and uneventful, a steady stream of tracts flowed from his pen. Edition after edition of the *Essay* was published. The sixth (1826) was the last to be issued in his lifetime. His other writings are *The Principles of Political Economy considered with a view to their Practical Application* (1820) ; a Series of Short Studies dealing with the Corn Laws (1814-1815) ; *On Rent* (1815) ; *The Poor Law* (1817) ; *Definitions in Political Economy* (1827).

Unpopularity of
the *Essay*

It has been said that Malthus was the " best-abused man of his time " ; he felt justly aggrieved that many of those who were loudest in their condemnation of the *Essay* had never taken the trouble to read it. Apart altogether from the style in which it is written the *Essay* can never hope to become a popular work. Beginning in a pessimistic vein, its author ends on a note that may be described as one of moderate optimism. Yet the number of those in any age who are prepared to face unpleasant facts and disquieting situations

is strictly limited. They are never popular. Whatever else he may or may not have done, Malthus faced facts. Some have maintained that if a list of English economists were to be drawn up in order of merit the name of Malthus would appear immediately beneath that of Adam Smith. Even those who regard this estimate as over-generous, contending that the second place should be assigned to Ricardo or Marshall, admit that if Adam Smith be the father of political economy, Malthus is the greatest of those who have as yet discussed one of the most perplexing, as it is one of the most vital, questions of our age—the question of population.

Malthus has other claims to distinction. He was amongst the first to propound the doctrine of economic rent associated with the name of Ricardo. His discussions on value are of considerable importance. He had much to do with the abolition of the old Poor Law system and his influence has been felt in every charity organisation society. Yet after all his fame depends upon his *Essay*; and if at best it makes rather melancholy reading one might reply that Malthus was not responsible for the state of things he described. Long before, a greater than he had pointed out that for many, perhaps most, life can never be a bed of roses.

“Sunt lacrymae rerum et mentem mortalia tangunt.”*

THE ESSAY ON POPULATION—FIRST EDITION

The French Revolution did not come as a bolt from the blue. For many years men had felt that the old order was about to perish, that a new order was struggling to be born. Those who instinctively shrank from change were filled with fear; those who welcomed change, no matter how violent, were filled with a strange sense of exultation.

Bliss was it in that dawn to be alive,
But to be young was very heaven.†

It was a time when men saw visions and dreamt dreams. Amongst such dreamers was William Godwin (1756-1836). Beginning life as a nonconformist minister in the country, he gave up the church and settled down in London, where he embarked on a political and literary career. In 1793 he published his famous work *Political Justice*, and in 1797 restated many of its doctrines in another work—a collection of essays—entitled *The Enquirer*. That very year Robert

*Life hath its tears and the heart is sad for human suffering. Verg. *Aen.* I., 462.

†Wordsworth (who at first hailed the French Revolution with enthusiasm).

Influence of
French Revolution

Godwin

Malthus paid a visit to his father, and father and son spent much time in discussing the views expressed in Godwin's latest book. Godwin might have taken as his own the Jacobin motto: "Society is produced by our wants; government by our wickedness": for he believed that once mankind had freed itself from the fetters imposed by kings and priests the golden age would dawn. Passion would be controlled by reason, injustice of every kind would be done away. "There would no longer be a handful of rich and a multitude of poor. Wealth would be more evenly distributed; the misery of to-day would give place to the happiness of to-morrow. There will be no war, no crimes, no administration of justice, as it is called, and no government. Besides this, there will be neither disease, anguish, melancholy, nor resentment. Every man will seek with ineffable ardour the good of all."* Such were the views which Robert Malthus and his father discussed. The elder man was inclined to agree with Godwin, the younger maintained that such views could never be realised on earth. Dissatisfied with the way in which he had expressed his criticism in verbal discussion, he determined to write out his views in more cogent form and at greater length. The result was the *Essay on the Principles of Population as it affects the Future Improvement of Society*. This was published as an anonymous pamphlet in 1798.

Origin of the
Essay

The *Essay*, then in its first form, was a political tract and was written by a country curate of 32. From the first it attracted attention and called forth an enormous amount of criticism. In his essay, Malthus professes to be quite as anxious as Godwin himself to see the conditions of life in England improved. He had little love for Pitt's scheme of encouraging the birth of children to fill up regiments continuously depleted in the wars in which England was constantly engaged, and he was greatly concerned at the unhappiness into which so many of the common people had been plunged by the changes introduced through the Industrial Revolution; but he saw that when the facts of life are faced, Godwin's glowing visions of a glorious future must vanish into empty air. For in this world, while population tends to increase by geometrical progression, that is in the proportion 1, 2, 4, 8, 16, and so forth, man's means of subsistence can only be increased in arithmetical progression, in the ratio, that is to say, of 1, 3, 5, 7, 9, &c. Men would be far, far more numerous than they are to-day but for the fact that war, famine, disease, and

(1) Law of
Increase

**Political Justice*, Book viii, Chapter 9, p. 528.

vice have kept the population within the limits of subsistence.

Godwin imagined that as men became more civilised the sexual passion would decrease in strength. Malthus replies that this is not only entirely opposed to all past experience, but to any fair interpretation of human nature. Man's master passions are but two: to maintain his own existence in a world in which the race is to the swift and the battle to the strong, and to hand on to future generations the life-blood which is now throbbing in his veins. The main causes of human suffering, therefore, do not originate with the tyrannies of kings and priests. The fault—if fault there be—lies not so much in human institutions; it is inherent in the very nature of things. Yet there is no need to despair. "Evil exists not to create despair but activity."* Man's fight with nature has made him what he is; has drawn forth and developed his ingenuity, his powers of forethought, his enterprise, his self-control; and, after all, this world is not the Creator's last word. After death man enters upon another life, in which injustice is done away, in which all the problems raised by his long training in earth's hard school find their only adequate solution.

(2) Sexual feeling

(3) Evil may lead to good

As we have said, the *Essay* raised a storm of criticism, and, as we shall see, Malthus was prepared to profit by it. Unlike Pontius Pilate with his "What I have written I have written," Malthus was ever ready to reconsider his *Essay* and to amend it—when he thought it required amendment—in view of fresh facts which he himself discovered or others brought to his notice. He waited for five years before he published a second edition, and then he altered it so that it became another work. That which began as a brilliant essay ended as a rather dull treatise; a treatise which lost in interest and charm of style what it gained in accuracy and balance.

Criticism

Man is more than an animal fighting for food. Selfish he may be; yet he is not wholly selfish. The best man who ever lived has at times to make the sad confession, "video meliora proboque deteriora sequor"† and on the other hand there are traces of unselfishness in the very worst. "There is some soul of goodness in things evil, would we but patiently distil it out." Hunger and disease, war and vice, are not the only checks which keep population within the limits that nature prescribes; man exercises prudence and self-control. If he be an animal he is a rational being, too.

(1) Man more than an animal

*First Edition, p. 353.

†I see the better way and approve, but I follow the worse. Ovid, *Metamorphoses*, viii, 21.

(2) False
psychology

The psychology of Malthus is defective in yet another respect. One must eat if one is to live ; one may, one need not, marry. In other words, to analyse man into reason and passion, and to assign, as Malthus is prone to do, an equal force and value to every passion is to produce an analysis that is untrue to fact. From first to last Malthus is—as indeed, all the English economists were, with the doubtful exception of Alfred Marshall—what philosophers call a Utilitarian.* In his opinion, that is to say the criterion of conduct is the happiness or unhappiness our actions cause. At best this is a rough-and-ready method. Who can define happiness ? “ Ten men love what I hate.”† This is no place to discuss the Utilitarian philosophy. It is peculiarly English and in the writings of its exponents has assumed divers forms, none of which would now be regarded as completely satisfactory, either from the psychological or from the philosophical point of view. No man can escape his own shadow ; we are all children of our age. Malthus, as psychologist, is open to all the praise—and it is by no means inconsiderable—and to all the blame—by no means negligible—which what is known as the English Utilitarian school has evoked in this and in other lands.

(3) The XVIIIth
century scholar's
advantages

In one respect we may envy Malthus and the other great men of the 18th century. There will never be another Gibbon. Never again will any man undertake the task of telling the whole story of the decline and fall of the Roman Empire. The future historian who seeks to trace the causes, to describe the actions, and to show the results of the World War of 1914-1918 will have to read so many documents, so many memoirs, will have to master such a stupendous mass of facts as may well appal the lightest and most courageous heart. So it is in almost every department of knowledge. New facts pour in upon us in such a steady stream that nothing remains for an honest student to do but to select one aspect of his subject and deal with that. He studies one group of trees in the great forest. He has neither strength nor time to deal with the forest as a whole. We see the individual trees, the man of the 18th century with fewer facts to handle was in many respects

*Utilitarian. In Galt's novel, *Annals of the Parish*, a Scottish minister warns his parishioners not to leave the Gospel and become Utilitarians. Mill seized upon the word and for some years used it to describe himself and others. So much for the form. The content is derived almost entirely from Bentham, who maintained that the goodness or badness of an action was determined by the amount of pleasure it caused. His motto was “ the greatest happiness of the greatest number.”

†Browning, *Rabbi ben Ezra*.

better fitted to view the forest as a whole. Here it is that Gibbon towers above all his successors in solitary grandeur. The modern scholar knows much that Gibbon did not know ; in some respects no doubt he has modified Gibbon's judgments ; but *on the whole* Gibbon remains unchallenged. In this respect Malthus—a man of far inferior genius—resembles Gibbon. He saw the forest. True, he overlooked many of the trees ; but that he *did* see the forest—perhaps more clearly than any man who has followed him—there can be no doubt. Yet if we have too many facts he had too few. This he felt himself ; statistics were not to be had. The first English census was taken in 1801. The vital statistics of other countries were equally defective ; if the Englishman knew little of the foreigner, the foreigner knew just as little of England. To get more facts, to collect all the data he could collect, Malthus made his foreign tour in 1799. The results of his researches are embodied in the second edition of his work.

THE SECOND EDITION (1803)

Two years after the first edition of the *Essay on Population* was published a young Welshman settled down in Lanarkshire as managing director of a cotton mill.

Robert Owen* was unspeakably distressed at the condition of those, particularly the children, who worked in factories ; and he did not rest until at New Lanark he had built the first model factory village. The good houses, the schools and abundant opportunities for recreation which he provided in this village became known far and wide, and men from almost every country in the world came to visit it. Owen proved that, by diminishing the hours of labour, by paying good wages and by attending to what is now called the "welfare" of his work-folk, he could earn larger dividends than those who adhered to the old system of insanitary houses and sweated

Owen, the man
of action

*Robert Owen, (1771-1858), born in Wales, went to work at nine. At ten went to London in search of fortune : from ten to eighteen was shop-boy and assistant in London and Manchester. At eighteen began (on borrowed capital) to manufacture textile machinery. At twenty-nine became head of the great cotton mills at New Lanark : was the first to realise that good houses, schools, and welfare work were a good investment from the standpoint of the capitalist ; advocated "Villages of Co-operation" ; offended the Church by his doctrine "Man's character is made for and not by him" ; tried to establish ideal communities in the U.S.A. ; became leader of English working classes. He succeeded in founding the modern Trade-Union movement and in preparing the way for the other great working class movement of co-operation. The greatest British socialist, his socialism is sometimes described as "Utopian" in contrast to the modern variety, termed "scientific." See *Robert Owen*, by G. D. H. Cole (1925).

labour. As is well known, Owen went a great deal further than this. Himself one of the most successful manufacturers of his time, he came to feel that the whole capitalistic system was wrong, that only when industry is put on a co-operative basis is there any hope of reaching a just solution of the social problem. We are not concerned, however, with the wisdom or unwisdom, the success or failure of Owen's later schemes. We only wish to call attention to the fact that, when faced with that which he regarded as a gigantic evil, he tried by every means in his power to obtain a practical solution. He did this by experiment, not by speculation, for he was essentially a man of action. Malthus,* though equally concerned with Owen at the condition of the poor, acted in a very different manner. He was a student, not a man of action; a physician who could diagnose disease, not a surgeon able and willing to operate upon the body politic. Selecting one element in the world-old problem of suffering, he sought to trace and explain its significance. That this suffering might be relieved, so far as that was possible, he probed into its causes, and suggested one cure. But he left it to others, to politicians, to men of action, who had studied his writings, to profit by his suggestions and to embody them in a change of national policy.

Malthus, the man
of thought

The new
hypothesis

The man of science face to face with innumerable facts instinctively tries to reduce chaotic experience to order, endeavours to discover the "laws" which govern the facts with which he deals. He frames an hypothesis, takes this hypothesis, applies it to facts in order that he may discover how far it is adequate to explain them. In nearly every instance after applying this acid test he discovers that the hypothesis as first framed is inadequate, requires to be modified. Malthus was no exception to the rule. His first hypothesis that population is kept within the means of subsistence by positive checks, by war, disease, famine, vice, he now abandons, and in its place he offers a new hypothesis. The positive checks are not the only checks; there is another, the preventive, self-control. These two together, the positive and the preventive, it is which regulate the numbers of mankind on the face of the earth and keep population within the limits of subsistence.

The change of emphasis is indicated by the very title given

*His motive for studying political economy was, no doubt, a mixed motive; it was partly the interest of an intelligent man in abstract questions; but it was chiefly the desire to advance the greatest happiness of the greatest number. (*Malthus and his work*. James Bonar, p. 57.)

to the revised version of the *Essay*, which now becomes *An Essay on the Principle of Population, or a view of its Past and Present Effects on Human Happiness*.

Given ample means of subsistence, population can easily double itself every 25 years. It tends to increase, that is to say, in what mathematicians call geometrical progression. The food, however, on which man subsists cannot be increased in the same ratio. It can be increased, but even the most primitive farmer soon comes face to face with what economists term the Law of Diminishing Returns.* More labour is required to win the same crop from infertile than from fertile fields; and after a field has been brought to a high state of cultivation, twice the amount of labour expended upon it will not yield twice as large a harvest. There is only one stronger desire in man's heart than to marry. There must be some reason—and obviously it is connected with the means of subsistence—why population is not greater than it is. The growth of population has been checked. War, disease, famine, vice, have cut off men when they were too numerous for the land in which they dwelt to support them. As man became more civilised he instinctively recognised this law and sought to evade it. He did so by chastening and controlling his desires; he denied himself immediate happiness that he might avoid greater evil in the future. This is the difference between civilised and uncivilised man.

The Thesis

The civilised v.
the uncivilised

In the case of the barbarian, population tends to increase *beyond* the limit of subsistence. To adjust the balance, war, disease, famine, vice, reduce his numbers. In the case of civilised man, population tends to increase *up to* the means of subsistence. Reason controls passion. Men refuse to bring into the world more children than the world can support. In ruder ages in the past and amongst the most degraded classes of the present the positive checks are those which are chiefly called into play. In modern times, amongst civilised peoples, restraint triumphs over passion: the preventive check is most important. But at all times the positive and preventive checks, taken together—they are related to each other in inverse ratio—determine the population of the world.

Such, then, is the celebrated thesis. Population tends to increase in geometrical ratio, the means of subsistence in arithmetical. The quantity of people is represented by the numbers 1, 2, 4, 8, 16, 32: the quantity of food by the numbers 1, 2, 3, 4, 5, 6. The balance is adjusted by checks, positive and preventive.

*Malthus himself nowhere uses this expression.

(1) Positive
checks

(2) Preventive
checks

Palliative
methods

The problem
postponed but
not solved

Making careful use of all the information at his disposal, Malthus divides mankind into two classes (a) those amongst whom checks are chiefly positive; (b) those amongst whom checks are chiefly preventive. Amongst the first he places the inhabitants of Tierra del Fuego, the aborigines of N.W. Australia, the American Indians, the South Sea Islanders. He includes the tribes of nomads who roamed over Europe in the time of the Roman Empire, most of the inhabitants of Africa (of whom, like others of his time, he was woefully ignorant) and Asia, together with the Greeks and Romans. In the second class he includes most civilised European countries, whether they be pastoral like Norway, Sweden, Russia, or industrial like France, England and Switzerland. Having shown the "principle of population" at work throughout the world, Malthus next addresses himself to the problems raised. He urged three measures. The State should encourage (1) emigration, (2) agriculture, (3) that justice and sense of security without which commerce is impossible. He ends his book with a severe criticism of the existing poor-laws and an earnest appeal to practise self-restraint. From what has been said, it is obvious that much in Malthus is now out of date, and that the *Essay* in its amended form is a dull and dreary book. The *Essay on Population* is as hard as the *Wealth of Nations* is easy to read. Yet the dark problem which Malthus faced so courageously is one to which the politician as well as the economist will have to devote ever-increasing attention. Malthus was a pioneer in the same sense that Adam Smith was a pioneer. Like Adam Smith, he remains to-day in his own department without a rival.

It is true, indeed, that great improvements in the arts of agriculture and still greater improvements in the means of transport have made it possible for great urban populations to be supported in a way that Malthus did not and could not imagine. It is true, moreover, that as the standard of comfort increases, the birth-rate tends to fall; and it is possible that science, the fairy godmother of the modern world, may yet place within our hands powers of producing food in ways that the most gifted imagination cannot now conceive. But so far as we know at present the fact remains that taking the world as a whole, population still seems to tend to increase faster than the means for its subsistence, and that whilst there is scarcely any limit to man's power of reproduction, there is and there will ever be a limit to the size of the earth on which he lives. The 19th century did not witness the solution of the

problem which confronted Malthus, it merely witnessed its postponement.

During the last 50 years it has become increasingly evident that men have learnt to distinguish between the desire for a mate and the desire to have children. In all highly-civilised countries, particularly perhaps in France, sexual desire and the reproductive instinct have become separated. The Neo-Malthusian movement, as it is called, which emphasises this distinction begins with Dr. Drysdale's *Elements of Social Science* (1854). In 1877 the Malthusian League was founded. Malthus himself was an ascetic: "To the Christian I would say that the Scriptures most clearly and precisely point it out as our duty to restrain our passions within the bounds of reason." That this was the ideal which he held out to others and the course he followed in his own life there can be no doubt. At the same time one or two passages might be quoted which serve to show that he realised the difficulties in the way of those who remain celibate during the best years of their lives, and that he felt, as a Utilitarian, that there were worse things perhaps than what is generally termed "immorality." It is not quite easy to define his position with perfect accuracy. Yet the uncompromising statement of Professor Gide* seems to be justified. "Malthus unceremoniously rejected the methods advocated by those who to-day bear his name, and expressly condemned all who favoured the free exercise of sexual connection, whether within or without the marriage bond, through the practice of voluntary sterilisation. All these preventive methods are grouped together as vices, and their evil effects contrasted with the practice of moral restraint." From what has been said it is obvious that the problems to which the question of population gives rise are very far indeed from having received solution. Much has been done, far more remains to be done. Statisticians, politicians, moralists, economists, find here and will for many years continue to find an ample field for labour. "A second Malthus is required," says Gide, "to open up a new chapter in the history of demography." A "second Malthus," however ardently desired, will be hard to find, for Robert Malthus was a pioneer in the same sense that Adam Smith was a pioneer. He resembles Adam Smith in yet another respect—he remains to-day, and is likely long to remain, without a rival in his chosen field.

*Gide and Rist. *A History of Economic Doctrines*, p. 128.

CHAPTER III

DAVID RICARDO (1772-1823)

IN two respects Ricardo differs from other great English economists. He was self-educated and he was a Jew. Adam Smith was an Oxford man, Malthus a Cambridge wrangler ; Ricardo was working in his father's office at 14 years of age.

Self-educated

The self-made man is usually a much abler and more forceful personality than one who has been born and bred in easy circumstances. Yet it is very seldom that he feels as much at home in the position to which he eventually attains, as do those who were living in luxury when he was perhaps toiling in the slums. In the same way, the self-educated man is for the most part keener and more enterprising, less conservative and conventional than one who has been educated at a great seat of learning. Yet he remains self-conscious and is, generally, to take a single example, uncertain not only of the way in which words are pronounced, but of the way in which they are used by cultured people.

A Jew

One can scarcely open a text-book in which Ricardo's name is mentioned without being told that he often expressed himself in such a clumsy manner that it is impossible for his readers to feel quite certain that they have grasped his meaning. In this respect he is the very antithesis of Adam Smith. In the next place Ricardo was a Jew. England is the paradise of Jews. Here they have greater liberty than in any other land. One brilliant Jew became Prime Minister, and in our own day gifted Jews have occupied the highest positions in the State. Yet even in England anti-semitism is never wholly dead ; the belief exists in many quarters that the Jew is an alien who can never feel as the ordinary Englishman does. In Smith and Malthus there is an under-current of passionate love for England which Ricardo seems to lack. He views life chiefly from the standpoint of the capitalist—perhaps even the cosmopolitan capitalist. When he speaks of "workmen" he emphasises the first syllable rather than the second, seems to ignore the fact that those who sell their labour are creatures of flesh and blood. It is only fair, however, to add that when he spoke in the House of Commons on the third Poor Law Bill (1819) he said that "the two great evils for which it is desirable to provide a remedy are the tendency towards redundant population, and *the inadequacy of the wages to support the labouring classes* ;"* and that when he vainly pleaded for a

*The italics are my own.

fixed Corn Duty, "he implored them to remember that they were legislating for the happiness of millions, and that there was no evil so intolerable as the high price of human food."* Perhaps, however, the best picture of his attitude to the working classes—his sense of their difficulties and at the same time his determination to refuse to allow such sentiment to impede the "march of progress," is seen in the speech which he contributed to the debate about the handloom weavers of Stockport. "The debate," says Smart, "was notable for the reiteration on the part of Ricardo that the extensive use of machinery, by throwing a large portion of labour upon the market, while on the other hand there might not be a corresponding increase of demand for it, must, in some degree, operate prejudicially to the working classes. But still he would not tolerate any law to prevent the use of machinery."† Then, too, Ricardo had the Jew's genius for finance. Famed for integrity, he was yet cool and calculating. Living at a time when prices fluctuated wildly, he took full advantage of his opportunities and speedily amassed a fortune.

A great
financier

David Ricardo, the third of a large family, was born in London on 19th April 1772. His father was a Dutch Jew who made a large income on the London Stock Exchange. When twelve, David went to Amsterdam, where he remained for two years in charge of an uncle. On his return he entered his father's office, where all went well until he fell in love with a lady who belonged to the Church of England. Ricardo married her, joined the national church, and was, as we might expect, disowned by his father. Certain members of the Stock Exchange, however, who had noted his great ability, rallied round him and gave him a start on the Stock Exchange. Within four years, by the time he was 25, he had made a fortune. Then he began to realise some of the gaps in his education, and set himself to study chemistry, geology, and mathematics. But the great change came over his life in 1779 when he was staying in Bath (which he was visiting with his wife for the sake of her health) where he came across the *Wealth of Nations*. He devoured the book, and never after did he doubt the direction in which his chief interest lay. It was economics. Of this, however, the world knew nothing for ten years till, in 1809, he contributed a series of letters to the *Morning Chronicle*. These he was persuaded to publish as a

*Smart II, 118, cf. his plea for Parliamentary reform. *Hansard* viii, 125, 172, 1149, 1260.

†Smart II, 147.

tract under the title of *The High Price of Bullion a Proof of the Depreciation of Bank Notes*. This pamphlet led to what is known as the "Bullion Controversy" and had much to do, it is said, with the setting up of the Bullion Committee. Controversy followed, and from this controversy Ricardo emerged triumphant. When the Bullion Committee handed in their report the name of Ricardo was not mentioned, but "there can be no doubt where it got its inspiration."*

One result of the part that Ricardo played in the Bullion controversy was that professional economists eagerly sought his acquaintance. In 1811 he met James Mill (who said twelve years afterwards that he and McCulloch were the only two real disciples Ricardo had). It was Mill who persuaded Ricardo—much against his will—to set down his views on economics in a more systematic form. The result was the *Principles of Political Economy* (1817). Two years previously Ricardo had embarked on another controversy, this time with his friend Malthus. The result was *An Essay on the Influence of a Low Price of Corn on the Profits of Stock*. This essay contains all the characteristic Ricardian theories developed in the *Principles*, except in so far as these are concerned with banking and taxation. In 1813 Ricardo purchased an estate in Gloucestershire. A year later he gave up business altogether. He was by this time a very rich man. Smart† says that he retired with a fortune of £500,000. Professor Gide estimates his wealth at £1,600,000.‡

In 1818 he was high sheriff of the county, in which he built and maintained an alms-house and two schools, and became an admirable country squire. Yielding to the solicitations of his friends, he decided to enter Parliament. He found a constituency in Ireland—Portarlington—which had twelve electors. As he had never visited Ireland and knew nothing of his constituents, he is supposed to have bought the borough for which he was duly re-elected in 1820. In the House of Commons he was at first shy and diffident. "I have no hope," he said, "of conquering the alarm with which I am assailed, the moment I hear the sound of my own voice." The members of the House, however, were indulgent to his nervousness, and he gradually gained self-confidence. His voice, it was said,

*Smart I, 237. †I. 180.

‡Gide and Rist, p. 139. The text in the original is: "Sa fortune était évaluée au chiffre qui serait énorme pour l'époque *mais probablement exagéré* de 40 million de francs." Gide refers the writer to his account of Ricardo in *La Collection des Grands Économistes*, 18 vols. Italics are Gide's own (letter dated 9/4/27).

was "harsh and screaming"; occasionally he revealed a touch of grim humour; once he spoke with some heat.* He was known as "the man who educated the House of Commons." His speeches, which were usually short,† were calm and serious expositions of principles. He insisted that everything should be tested by "economic theory."

The average Englishman, however, is essentially practical, and we are not surprised to learn that some members of the House found exposition of theory little to their taste. "My late friend Ricardo," said Baring, "had some of the most fanciful theories that could be imagined."‡ "The insinuating eloquence of Ricardo—whose memory would long be cherished and most sincerely by those who knew him best," said Lethbridge, "had done much mischief by leading the House from practical views, his writings showed contradiction on contradiction, and however charming his theories were to political economists, they were diametrically opposed to practical results."||

Smart, who quotes almost every speech of Ricardo, has shown what a firm hold he had on the House of Commons, and how his ideas permeated that assembly. "He seemed free," said Hobhouse, "from every bad passion, and those who came within the sphere of his gentle and resistless influence felt that he was born for the consolation of those around him and for the happiness of mankind."

In 1820 he wrote an article on the *Funding System*. In this he advocated what is now called the Capital Levy as a means of paying the national debt. In 1823 he repeated in the House of Commons the suggestion he had made in 1819 that there ought to be a general contribution from the capital of the country for that purpose (i.e. to get rid of the national debt). He himself would contribute any proportion of his own property if others would do the same.¶ In 1822 he published a pamphlet on *Protection to Agriculture*, which is generally regarded as the ablest of all his tracts. He expounded the views expressed in this tract on more than one occasion in the House with "masterly ability." But his career as politician and economist came to a premature end, for in the following year he died. Miss Edgeworth has left a delightful picture of life at Ricardo's country-seat, has described his brilliant conversation, his skill at charades, his kindness

*Smart, II, 162. †ib 137, 139.

‡Quoted from Smart II, 370. ||Smart II, 209.

¶Smart II, 152, n. cf. Cannan, *The Economic Outlook*, 133.

and generosity. Like many others of his time, he found it possible, as we do not, to combine generosity in private life with keen competition in business. Of his own business on the Stock Exchange he once said "Competition was nowhere carried to such an extent and nowhere operated with more benefit."

Ricardo's nobility of character is universally recognised. His record is unblemished. There was scarcely a charity in London to which he did not give the most generous support. "He was," says one eulogist, "at once the firmest and the gentlest of human beings."

II

"Deductive "

In the Middle Ages when men reasoned they began with a statement—generally received on the authority of the Church—which was assumed to be true. They took this statement, analysed it, and, with the help of Aristotle's* logic, showed the consequences that followed from it. This mode of procedure is commonly termed the deductive method. Its essence is that one starts with a general principle, and from this principle works down to the facts which it is sought to explain. When Bacon† ushered in the era of modern science he reversed the method. Beginning with a multiplicity of facts, he examined them, and sought amidst their infinite variety the one feature which was common to them all, the one general principle on which they all seemed to depend. This is known as the inductive method. In the first case we proceed from the "one" to the "many"; in the second from "the many"

"Inductive "

*Aristotle, (384-322 B.C.), one of the greatest thinkers, many think the greatest thinker, who ever lived: tutor to Alexander the Great—his most famous works are his *Logic*, *Metaphysics*, *Ethics*, *Politics*. His works were known to the Arabs, and in their Latin version were the basis of all serious thought during the Middle Ages.

†Francis Bacon, (1561-1626), rose to be Lord Chancellor, but in 1621 was accused of corruption by the Commons. He made no defence, merely asking his Judges "to be merciful to a broken reed." Was fined £40,000 (the fine was remitted), was committed to the Tower during the King's pleasure (this lasted for but two days), and was declared incapable of again holding public office. He retired with a pension of £1,200 a year. His best known work is his *Essays* (1597), a book which expresses wise reflections in the most perfect English. His great scientific works are the *Advancement of Learning* (1605), *Novum Organum* (1620), *De Augmentis Scientiarum* (1623). Bacon broke with the century-old tradition of Aristotelian deductive logic, and insisted that, by actual investigation of natural phenomena, which are afterwards selected and properly arranged, man's knowledge is extended. Bacon is thus in a sense the father of modern science, and of the English school of philosophy, which was subsequently developed by Hobbes, Locke and Hume.

to "the one." As a matter of fact, no man uses either method exclusively. In all thinking there is a blend of analysis and synthesis. None the less it is true that *on the whole* some men are more prone to use the deductive method, to begin, that is, with general principles and apply them to facts, whilst others are more inclined to use the inductive method, to examine carefully a large number of facts in the hope that beneath the multiplicity some unifying principle may be found. There can be little doubt as to which class Ricardo belonged. In economics he is *par excellence* the representative of the "abstract," the deductive method. He had little use for a man who was "all for fact and nothing for theory." "Such men," he said, "can hardly ever sift their facts. They are credulous and necessarily so because they have no standard of reference." Apart from his peculiar cast of mind, which tended to abstraction, there were three things which tended to increase Ricardo's natural bent. He was a Jew, a cosmopolitan at heart. He had little sympathy with what he called "the absurd jealousies which prevail between the different states of the commercial commonwealth," with "that absurd jealousy which influenced our forefathers." He was, in other words, the last man to understand such a cry as "Buy British Goods." He cherished "the pleasing conviction that we can never, by freedom of commerce, promote the welfare of other countries without also promoting our own." In the second place, though he spent his later years as a country gentleman and could say in the House of Commons "I am not a mercantile man," yet the formative period of his life was spent on the Stock Exchange amongst men who had little contact with those who were actually engaged in manufacture or agriculture. We often feel that the farmers, manufacturers and labourers of whom he speaks are not so much human beings as automata. They are a race of Robots devoid of sentiment, quick to seize every opportunity of securing personal advantage. There are indeed some manufacturers who are quick to detect the fact that one form of industry is about to give place to another, who do not hesitate to cross the Rubicon and burn their boats behind them. Most men, however, when they find that their particular trade has fallen on evil days continue to hope for better times, and wait and wait until the tide of opportunity has passed. "From clogs to clogs in three generations" is a truer picture of human life as we know it than Ricardo's picture of manufacturers ever ready to withdraw their capital from a decaying industry

Ricardo uses the deductive method

(1) Cosmopolitan

(2) His experience gained on the Stock Exchange

that they may invest it in new and more promising forms of enterprise. It is only fair to add, however, that when as a member of the House of Commons he advocated change either with reference to the Bank of England, or to bounties on corn, Ricardo always insisted that change should be so gradual that those concerned would have time and opportunity to adapt themselves to new conditions. He recognised, moreover, that farmers are naturally conservative, that when their business does not pay they are not only loath to change, but find it very hard to do so : yet after all it is hard to escape the impression that Ricardo's farmers, like his manufacturers and labourers, are Robots rather than men.* "The member for Portarlington," said Brougham, "has argued as if he had dropped from another planet."

In the third place Ricardo knew nothing of history. He lived in a unique period and to use his own phrase he "had no standard of reference" by which to judge it. Had he known history better than he did it is possible that he might have seen that certain conditions which he regarded as normal were abnormal. Some of the theories and statements which held good for his own day have ceased to apply to ours. He never imagined, to give a simple illustration, that England would import the bulk of her food supplies, "I differ," he said, "with those who think that the quantity which we should import would be immense." It is somewhat doubtful if those responsible for feeding England during the recent war when cargoes of food were constantly torpedoed, would have endorsed these complacent words. "And if it (the quantity of imported food) were as large as the objection requires, I can see no danger as likely to arise from it."

Of the six economists dealt with in this book, Ricardo is the only one who had "little Latin and less Greek." His style is the despair of commentators. Not that he could not write good English when he chose—he has none of the loose grammar so often found in Jevons—but he habitually assumed a quickness of perception, and a power to remember a statement once made in an apparently casual way, which few readers are able to supply. "My speaking," he writes to his friend Malthus, "is like my writing, too much compressed. I am apt to crowd a great deal of difficult matter into so short a space as to be incomprehensible to the generality of readers." Fortunately for Ricardo he numbered amongst his disciples one of the most lucid of all expositors,

*Hansard, N.S. 1/635, 705.

Ignorant of history

Style

John Stuart Mill, who had abundant opportunity of learning the exact meaning of his master's words. None the less, the fact remains that no economist of the first rank has been so often misunderstood alike by friend and foe as David Ricardo. It is only fair to remember that he never intended to produce a systematic treatise, that even when he yielded to the entreaties of the elder Mill and put his theories on paper, his *Principles* was rather a series of disjointed essays on economic topics, than a systematic exposition of the science as a whole. Archimedes* insisted that it was impossible for him to lift the world unless he were given a fulcrum on which to rest his lever. In the same way even the most abstract of thinkers must have some basis for his theories in solid fact. When we consider the conditions in which he lived we realise that Ricardo's thinking is much less abstract much more in contact with reality than his enemies allow. England was engaged in the Napoleonic wars, the national debt had risen from 220 to 830 millions, taxation was heavy. In 1797 there was a financial panic. The reserves of the Bank of England fell from 10 to $1\frac{1}{2}$ million, and an order in council was issued suspending cash-payments. This measure which was supposed to be of a purely temporary character remained in force till 1819. During the whole period the currency was depreciated. Bank-notes were as a rule worth only about 90 per cent. of their nominal value; at one time towards the end of the war they fell as low as 60 per cent. There was a feeling in men's minds that the Bank had not handled the difficult situation with the wisdom which was required. Ricardo, for instance, deplored "a state of things which allowed a company of merchants to regulate the value of money as they might think proper." Restrictions were placed on the importation of corn and the price of food was high. Rents were steadily rising. "The interest of the landlord," says Ricardo, "is always opposed to the interest of every other class in the community. His situation is never so prosperous as when food is scarce and dear." Wages were rising. Meanwhile in spite of everything England was coming more and more to be the workshop of the world. Whilst the continent was ravaged by war her shores remained inviolate. There was desperate need of capital to finance her ever-expanding industries, and the "profits on

State of England
in the time of
Ricardo

*Archimedes (circa 287-212 B.C.) a Greek, the most famous mathematician of antiquity. When he discovered the principle which bears his name, "that a body immersed in a liquid loses weight by an amount exactly equal to that of the liquid displaced," he was in his bath. He is said to have rushed naked into the streets crying, "Eureka! Eureka! I've found it! I've found it!"

stock," i.e. the return on capital invested by the manufacturer in his business from which alone, as men then thought, fresh capital could be procured, were steadily falling. Population was increasing. Farmers were forced to bring poorer land under cultivation. "On the sea coast of Norfolk, Suffolk, Essex and Kent," said one witness who gave evidence before the Agricultural Commission of 1821, "the crop is thought a bad one, if it be not forty bushels per acre. I do not believe that the very poor lands produce above eight bushels per acre."

The Bullion
Controversy

In dealing with Ricardo's contributions to economic theory it is best to begin with his treatment of money. *The High Price of Bullion*, and his *Reply to Mr. Bosanquet's Observations on the Report of the Bullion Committee* (1811) are not only his earliest and perhaps his most lucid writings, they are the least abstract. In the second especially he marshals a mass of facts with which business experience had made him familiar and handles them in such a masterly way that poor Bosanquet, a merchant who came forward to defend the policy of the Bank, was completely discomfited. "Without writing a formal treatise on the subject Ricardo has, I think," says Professor Gonner, "contributed more to our correct understanding of the theory of money than any other writer."

Over-issue of
bank-notes

Ricardo sets out to prove that, acting under the protection of the Bank Restriction Act—"that most impolitic Act," as he terms it—the Bank of England had depreciated the value of the currency by issuing too many notes. In reply to those who urged that it was not the over-issue of notes but the fall of the country's credit, which was responsible for the state of things which all lamented, he said that there are two tests by which we can determine whether a country's currency is depreciated or not. (1) The Foreign Exchanges.

Test currency by
foreign exchange

If the exchange is *continuously* so much against a country that it is profitable to incur the expense of exporting bullion, then the currency is *depreciated*. For no one would go to the expense of exporting gold unless it were less valuable in one than in the other. A country pays her debts in bullion only when bullion is the commodity she can export with most advantage. And since bullion merchants are peculiarly alert and their profits quickly made, as long as the exchange is depreciated, as long as money is less valuable in one country than another, it will be exported.

Mint price

(2) If the market price of bullion is *continuously* greater than the mint price, the currency is depreciated, "not that gold as a commodity may not rise above its value as coin,

but that it cannot continue so, because the convertibility of coin into bullion would soon equalise their value. We cannot do better, however, than imitate Dr. Smart in reproducing what he calls McCulloch's "splendid summary" of this important work. "Its chief thesis is that, so long as the currency of any particular country consists exclusively of gold and silver coins, or of paper immediately convertible into such coins, its value can neither rise above, nor fall below, the value of the metallic currencies of other countries, by a greater sum than will suffice to defray the expense of importing foreign coin or bullion, if the currency be deficient ; or of exporting a portion of the existing supply, if it be redundant. But when a country issues inconvertible paper notes, they cannot be exported to other countries in event of their becoming redundant at home ; and whenever, under such circumstances, the exchange with foreign States is depressed below, or the price of bullion rises above, its mint price, more than the cost of sending bullion abroad, it shows conclusively that too much paper has been issued, and that its value is depreciated from excess." Having proved that the currency was depreciated, Ricardo proceeded to ask how it might be restored to its normal value. "The remedy which I propose for all the evils in our currency is that the bank should gradually decrease the amount of their notes in circulation until they shall have rendered the remainder of equal value with the coins which they represent, or, in other words, till the prices of gold and silver bullion shall be brought down to the present mint price." Yet Ricardo did not want the gold coins to be restored. He looked on this as wasteful, and when in 1821 the bank petitioned Parliament to grant it leave to resume payment in specie two years before the Act of Sir R. Peel required this to be done, Ricardo was most indignant and said that their hasty and ill-considered action had raised the price of all commodities by 5 per cent. He himself wanted a paper currency. "A well regulated paper currency," he says, "is so great an improvement in commerce that I should greatly regret if prejudice should induce us to return to a system of less utility." He thought that the evil would be avoided if no guineas were minted whilst the Bank was compelled to keep a reserve of gold in the form of uncoined ingots. He suggested that these should weigh twenty ounces, but did not greatly care whether they were twenty or ten or thirty. In this way, whilst it would always be possible to exchange bank-notes for gold, the public would prefer to use a paper

McCulloch's
summary

Ricardo's plan

currency. In his main contention Ricardo was completely successful. The Bank Act of 1822 (still more that of 1844) embodied his central principle ; though his plea for the disuse of specie fell on deaf ears.

What has been said by no means exhausts the contents of the two pamphlets with which we have dealt, and of the cognate tract *Proposals for an Economical and Secure Currency* (1816). Ricardo discusses such questions as the quantity of money required for circulation. This he says depends in any country upon three things : " first, on its value ; secondly, on the amount or value of the payments to be made ; and, thirdly, on the degree of economy practised in effecting these payments." He deals with bi-metallism and shows the disadvantages inherent in a dual standard. Realising the fact that neither gold nor silver is an invariable standard of value, he glances at what are now called Index Numbers, but dismisses the suggestion that, by taking a great variety of commodities as our measurement of value we might obtain a standard more stable than that afforded by gold. The value of gold he maintains, we need scarcely add, depends upon its cost of production.

If further proof were required that Ricardo was no mere academic thinker remote from life, it is found in his vigorous tracts, *Influence of a Low Price of Corn on the Profits of Stock, On Protection to Agriculture*. They are occasional ; that is to say they deal with definite evils that were felt at a definite time (1820, 1821) ; but they involve wider issues. Ricardo urges that the Corn Laws should be repealed. He wishes to see free imports of grain but he is willing to go slowly. He is willing to give a monopoly of the home market to the English farmer till corn falls to 70s. a quarter. Then he will put a duty of 20s. on imported wheat. This 20s. would be reduced by 1s. a year till it came to 10s., which would permanently remain to compensate the farmer for tithe and other taxes which fell on agricultural land. The tract is a vigorous plea for free trade. " Few writers," says Professor Gonner, " have depicted so concisely the real futility of wholesale protection and the close interdependence of exports and imports." Dr. Smart describes the pamphlet as a *chef d'oeuvre*, and McCulloch refers to it in even higher terms.

We must now turn, however, to Ricardo's greatest work, his *Principles*. " Political Economy," he writes to Malthus, " you think is an inquiry into the nature and causes of wealth. I think it should rather be called an inquiry into the laws

which determine the division of the produce of industry amongst the classes who concur in its foundations." How, in other words, was the national income to be divided; how much was to go to the landlord, how much to the farmer and manufacturer, how much to the labourer, that was or at least seemed to be, the vital question for Ricardo's time. "Without a knowledge of rent it is impossible to understand the effect of the progress of wealth on profits and wages, or to trace satisfactorily the influence of taxation on different classes of the community." The theory of rent associated with the name of Ricardo was partially anticipated by others, by Anderson* and West,† to say nothing of Malthus. "The principles which regulate rent are briefly stated in the following pages, and differ in a very slight degree from those which have been so fully and so ably developed by Mr. Malthus." None the less, Ricardo, and Ricardo alone, made it the foundation of economic theory. "Rent," he says in his famous definition, "is that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil." It arises because land is of differing degrees of fertility, because the best land is first cultivated, then the next best, and so on, until we come to land on which expenditure of labour and capital is just sufficient to yield a profit on capital, but no more. This land pays no rent. The difference between the yield on this piece of land and the yields on the more fertile pieces is "rent." Rent has three causes: (a) difference of natural fertility between different soils; (b) difference of situation with regard to the market; (c) difference in the returns to capital and labour on the same soil as determined by the law of diminishing returns. Ricardo's doctrine

*James Anderson, (1739-1808), Scottish farmer, inventor of the "Scottish plough." Of him Jevons says, (*Theory of Political Economy*, 4th edition, pp. 210, 211), "The theory of rent was first discovered and clearly stated by James Anderson in a tract published in 1777 and called *An Inquiry into the Nature of the Corn Laws, with a view to the Corn Bill proposed for Scotland* . . ." In every country there is a variety of soils, differing considerably from one another in point of fertility . . . Now, as the expense of cultivating the least fertile soil is as great as or greater, than that of the most fertile field, it necessarily follows that, if an equal quantity of corn, the produce of each field, can be sold at the same price, the profit on cultivating the most fertile soil must be much greater than that of cultivating the others; and, as this continues to decrease as the sterility increases, it must at length happen that the expense of cultivating some of the inferior soils will equal the value of the whole produce," *Inquiry, &c.*, p. 45 note.

†Sir Edward West published his *Application of Capital to Land* in 1815. Ricardo acknowledges his debt to this book. cf. Mill's *Principles*, p. 425 (Ashley's edition).

Criticism

has had many critics. It combines, says Sidgwick,* in a somewhat confusing way at least three distinct theories, resting on different kinds of evidence and relating to different, and not necessarily connected inquiries: (1) a historical theory as to the origin of rent: (2) a statistical theory of the economic forces tending to determine rent at the present time; and (3) a dynamical theory of the causes continually tending to increase rent, as wealth and population increase. Inexactly worded as it was,† Ricardo's doctrine of rent "celebrated," says Gide, "above all economic doctrines, when broadly interpreted has become part and parcel of the very framework of economic theory." By Marshall it has been applied with conspicuous success to many other spheres of industry than agriculture. Then, too, it is of immense historical importance, for it is the foundation on which writers of the socialistic school have based their doctrines of "unearned increment" and the "nationalisation of land." No one needs to be reminded of the profound influence Ricardo's writings, whether understood or misconstrued, intentionally or unintentionally, exercised on Karl Marx.‡

Wages

With his theory of rent, Ricardo connects his doctrine of wages. Wages depend on the "price of food," necessities and conveniences required for support of the labourer and his family. Raise the price of food, and the natural price of labour rises. Whenever wages rise the population automatically increases and automatically wages fall once more. "From the effect of the principle of population on the increase of mankind, wages of the lowest kind never continue much above that rate which nature and habit demand for the support of the labourers." Profits depend on wages. "There is no other way of keeping profits up but by keeping wages down," for the whole value of the commodities of the farmer and the manufacturer is divided into two portions, one of which constitutes the profits of stock, the other the wages of labour."

Profits

**Principles II*, 7, Section 1. †Marshall *Economics of Industry*, 118-119.

‡Heinrich Karl Marx, (1818-1883), son of a Jewish lawyer, a convert to Protestantism, was born at Trèves, Ph.D. of Berlin 1841, met Engels in Paris 1844, published the *Communist Manifesto* 1847; editor of the *Neue Rheinische Zeitung*, Cologne (1848), expelled from Prussia 1849, settled in London and remained there until his death. *Das Kapital*, "the Bible of the German socialists," was published in 1867. The best short account in English of Marx is *Karl Marx's Capital*, by A. D. Lindsay, Oxford, 1925. See also *Karl Marx*, an essay by H. J. Laski (Fabian Society, 1921), and *Communism*, by H. J. Laski (Home University Library, 1926), a book which requires to be read in a critical and cautious spirit.

It is well known that Ricardo's theory of labour value prepared the way for Marx's theory of surplus value and that this is the foundation of modern socialism ; but it is not so well known that Ricardo was dissatisfied with his own theory. Writing to McCulloch in 1819, he says, " I am not satisfied with the explanation which I have given on the principles which regulate value. I wish a more able pen would undertake it." A year later in a letter to Malthus, he says of McCulloch's theory of value and his own, " Both of us have failed."

In yet another direction Ricardo has left a permanent mark on economic thought. We shall hear more of his theory of the Balance of Trade when we come to deal with J. S. Mill, who adopted it and developed it. Meanwhile, it is sufficient to say that his doctrine of international trade is the foundation on which all subsequent theory has been built. "Next to Smith,"* says Professor Gide, "Ricardo is the greatest name in economics." It may be true, as the same writer observes, that of his theories, "there is now little left"; it is undoubtedly true that his style is obscure, though the charge of obscurity is often exaggerated—and that most of those who quote his words have not taken the trouble to read his writings. But when we remember the influence he exerted on men like Marx who turned his doctrines to such uses as he himself could scarcely have imagined, still less approved, and on professional economists in every country, above all on Alfred Marshall who is never weary of praising "the masterly genius" of the great man to whom he owed so much, it is difficult to assign this amateur—for after all, he was an amateur—too high a place in the list of the greatest economists.

Theory of
foreign trade

**A History of Economic Doctrines*, p. 138.

CHAPTER IV.

JOHN STUART MILL (1806-1873)

"In the vigour and penetration of his intellect he has had few superiors in the history of human thought."* Such are the terms in which John Stuart Mill describes his father. If the words are scarcely calculated to increase our estimate of his ability as a critic, they at least awaken interest in the man on whom he bestowed such unstinted praise. James Mill (1773-1836) was a Scotsman, who was educated for the ministry of his national church. Cold and critical in disposition, with little imagination and less sympathy, it was well both for the church and for himself that he abandoned the prospect of a clerical career. Entering the service of the East India Company, he rose to be "examiner" that is to say, the chief official in India House, at a salary of £2,000 a year. His greatest literary work was the *History of India* (1817), but his *Elements of Political Economy* (1821) and his *Analysis of the Human Mind* (1829) are of considerable importance and the article on Government which he contributed to the *Encyclopædia Britannica*, became the text book of the "philosophical radicals." He did much, it is said, to advance the reform movement which culminated in 1832 and exerted great influence on the middle classes in such industrial centres as Manchester and Birmingham. But he had no sense of the mystery of life and his theories in ethics and psychology were too simple to be true. A pure sceptic he deprecated all feeling and looked askance at poetry. "He wore a mask on his face" (Bentham)†; "He had something of the dogmatism of his school" (Brougham)‡; "He was the most impatient of men" (J. S. Mill). As historian, publicist, economist, psychologist, as bureaucrat and conversationalist, James Mill cut a by no

*Preface to James Mill's *Analysis of the Human Mind*.

†Jeremy Bentham, (1748-1823), a barrister who did not practise, wrote a *Fragment on Government* (1776), *Principles of Morals and Legislation* (1789), *Defence of Usury* (1816), established *Westminster Review*, 1823. Bentham exerted great influence on the younger radicals and through them on legislation. He is the father of the "utilitarian" philosophy, a system which, in the form in which he presented it, has been completely superseded.

‡Lord Brougham, (1778-1868), born and educated in Edinburgh, called to the Scottish Bar, became one of the leaders of the young Whigs and one of the founders of the *Edinburgh Review*. Settled in London in 1805, called to the Bar (1808), entered Parliament (1810), Lord Chancellor (1834); vain, overbearing, inconsistent, he was an impossible colleague. A keen educationist he helped to found London University; chiefly remembered now as a law reformer.

means inconspicuous figure in his day. Yet, if he is remembered—and no doubt he will be remembered—it will be chiefly as a schoolmaster, one of the most remarkable schoolmasters of all time. Busy man as he was, he undertook the entire task of educating his gifted son. Stuart Mill began to study Greek when he was three. By the time that he was eight, he had read a good deal of Xenophon, Herodotus and Plato, to say nothing of such English writers as Gibbon and Hume. At eight years of age he commenced Latin, and soon read Vergil, Horace, and Livy. At ten he found the calculus somewhat difficult. When twelve he began the study of logic and economics, and by the time that he was thirteen, had mastered all the economic theory that was known in those days. Small wonder if he came to feel that "this method of early, intense application," was not to be recommended, that even in the few exceptional cases where it answered, "the buoyancy of youth is entirely superseded by the maturity of manhood." "I never was a boy," he said, "never played at cricket; it is better to let Nature have her own way." When fourteen, Mill accompanied Sir Samuel Bentham*, his wife and three daughters, to the South of France. There he spent a year. He worked hard at French, Greek, Latin and mathematics, met the economist Say,† learned to take a keen interest in foreign politics, and came to feel that a man who knows something of two countries, is less liable to make mistakes than the man who knows but one. In 1823 he entered the India Office where he rose steadily till in 1856 he was made "examiner" at a salary of £2,000 a year. When the East India Company handed over the Government of India to the Crown, Mill retired with a pension of £1,500 a year. Meanwhile he had begun to read philosophy seriously in 1822, founded the Utilitarian Society in 1823, and the same year joined the Speculative Debating Society, in which he came to be the leading spirit. He was

*Sir Samuel Bentham, (1757-1831), younger brother of Jeremy: inspector-general of naval works, who effected improvements in dock yards.

†J. B. Say, (1767-1832), celebrated French economist, born at Lyons, worked in England in an assurance company: from 1794-1800 edited a review; in 1803 published his *Traité d'Économie publique*, which was proscribed by the First Consul; republished in 1814. In 1816 he delivered a course of lectures on political economy, probably the first course given in France: in 1831 was made Professor of Political Economy in the Collège de France. Say was profoundly influenced (1789) by the *Wealth of Nations*. "When we read this work, we feel, that previous to Smith there was no such thing as political economy." Say, who enjoyed a European reputation, did more perhaps than any other man to popularise the teaching of Adam Smith. His *Cours complet d'Économie politique* was published in six volumes, 1828-29.

steadily fulfilling his father's hopes. The champion of the new philosophical radicalism, he was the chief contributor to the *Westminster Review* which had just been founded. "I now had opinions ; a creed, a doctrine, a philosophy ; in one among the best senses of the word, a religion."*

This happy state of affairs was not destined to continue for very long. In 1826 he passed through an experience which he compared to that of a Methodist under a conviction of sin. "I seemed," he says, "to have nothing left to live for." He had met Maurice† and Sterling‡ at the Speculative Debating Society, and by them had been introduced to the writings of Wordsworth and Coleridge, Carlyle and Goethe.¶ He had discovered that there were more things in heaven and earth than his rationalistic father had dreamt of. "Analytic habits," he had come to feel, "are a perpetual worm at the root both of the passions and of the virtues." Small wonder that there was alienation between him and some of his old friends. "He had made the sacrifice," said Sterling, "of being the undoubted leader of a powerful party for the higher glory of being a private in the army of Truth." Consolation he sought and found in the poetry of Wordsworth. Meanwhile, despite a severe illness, heavy work at India House, and the publication of numerous articles in newspapers and reviews, he had been busy on his first great work. Mill's *Logic* was published in 1843 and met with immediate and well-deserved success. For the first time men were given a clear analysis of the

*Autobiography, p. 64.

†John Frederick Denison Maurice, (1805-1872), theologian and social reformer, one of the leaders of the Broad Church Movement, with Kingsley one of the leaders of the Christian Socialists: organised the Working Men's College in Gt. Ormond Street; vicar in London, 1860-1866; Professor of Moral Science at Cambridge from 1866 onwards.

‡John Sterling, (1806-1844), Scottish writer, pupil of Julius Hare at Cambridge and, in 1834, his curate at Hurstmonceaux. Gave up orders because of ill-health, became acquainted with Carlyle, who wrote his life.

¶Goethe, (1749-1832), one of the most brilliant men who ever lived, the greatest poet since Shakespeare. "The world's most universally gifted of writers," born at Frankfurt am Main, educated at Leipzig and Strassburg, from 1775 onward he lived in Weimar, where he held several responsible government posts. Distinguished as a botanist and philosopher, his enduring fame depends upon his poetry. *Faust*, the greatest poem of modern times, and his exquisite lyrics, alone suffice to make him immortal. In addition to these, however, there are his plays, and his prose works such as *Werther*, *Wilhelm Meister*, *Dichtung und Wahrheit*. "The epitome of the xviiiith century, he yet dominated the Romantic Movement of the xixth century." His superb style is only equalled by the breadth of his imagination, and that, in turn, by the depth of his thought.

methods of science in general ; in particular of the part which experimental inquiry plays. " John Mill's *Logic*," said Grote,* " is the best work in my library." It has been shown by Courtney in his admirable criticism of this book† that " Mill's metaphysics are transitional." " He is half-way between Hume and Spencer‡ in certain doctrines ; in others he seems to try to mediate between Descartes|| and Locke.§" All his life long Mill tried to keep an open mind ; he hated dogmatism, was " intensely receptive of other men's views," and his favourite maxim was that truth lay somewhere between two opposite theories. All this, however, does more credit to his heart than to his head. Here, as elsewhere, he seeks to combine two opposite points of view (in this case the idealistic and the experimental), and fails to reconcile them. For many years Mill was much read at the Universities. One of the reasons undoubtedly was that his works afforded clever

*George Grote, (1794-1871), after leaving Charterhouse entered the family banking business : wrote much in favour of reform ; M.P. for the City of London, 1833-1841 ; helped to found London University : a philosophical Radical : famous for his great *History of Greece*, in twelve volumes (1846-1856), buried in Westminster Abbey.

†Courtney, *Life of J. S. Mill*, 84-88.

‡Herbert Spencer, (1820-1903), endeavoured to include all science in one comprehensive system. His philosophy is based on " evolution " and assumes that behind all phenomena there is an unknown and unknowable " absolute." His work at one time enjoyed great popularity at home and abroad : to-day men are critical in their judgment of it and somewhat sceptical with regard to its value. It is unlikely that anyone in the near future will imitate Spencer in his attempt to explain the whole of existence. The task is now regarded as being beyond human power.

||Réné Descartes, (1596-1650), famous as a mathematician, still more famous as the father of modern philosophy. Descartes set out to doubt all that could be doubted, and came to the conclusion that there was one thing which he could not doubt, " self-consciousness." *Cogito ergo sum*, I think, therefore I am. He maintained that man brought with him into the world certain " innate " ideas, such as the idea of God. His most famous works are the *Discourse of Method* (1637), *Meditations* (1641), *Principia* (1644). His rationalistic principles involved him in religious persecution, to escape which he became tutor to Christina, Queen of Sweden, where he died.

§John Locke, (1632-1704), educated at Westminster and Oxford, secretary to Lord Shaftesbury (1666-1681), suspected by the Government he fled to Holland, returned to England 1689. Commissioner Board of Trade (1696-1700). His chief works are *Essay Concerning Human Understanding* (1690), *Essay on Toleration* (1689), *Treatises on Government* (1689), *Reasonableness of Christianity as delivered in the Scriptures* (1691). Locke is one of the most famous advocates of liberty. In opposition to Descartes he maintains that there are no " innate ideas," that at birth the mind is a *tabula rasa*, i.e. a blank sheet of paper on which the senses write. According to Locke, therefore, all knowledge is limited to sense experience with reflection on it.

under-graduates abundant opportunity of detecting the inconsistencies in which his works abound. The old whist player was told, "When in doubt lead trumps"; the undergraduate's maxim was, "When in doubt go for Mill."

In 1848 the *Principles of Political Economy* was published. The book was eagerly expected. It was known that Mill had studied economics from the days of his childhood; that his father had been an intimate friend of Ricardo, that he himself had already written weighty articles on economic subjects. Then, too, as Sidgwick has pointed out, after the corn laws were repealed, England experienced a period of great prosperity. Men mistook as they so often do the *post hoc* for the *propter hoc*; and thought that actual events had proved the Free Trade thesis of the classical economists. "It appears to the present writer," says Mill in his preface, "that a work similar in its object and general conception to that of Adam Smith, but adapted to the more extended knowledge and improved ideas of the present age, is the kind of contribution which Political Economy at present requires."* It was hoped that Mill would do for the 19th century what Adam Smith had done for the 18th. Of the merits of Mill's great work we shall speak in due season; meanwhile, we merely call attention to the obvious fact that John Stuart Mill was *not* an Adam Smith.

We have seen that Mill was peculiarly sensitive to external influence. His father had striven to mould him in his own image, to make him as far as possible a thinking machine entirely devoid of sentiment. We have seen how at the time of his "Crisis" his starved feelings cried aloud for satisfaction, that for a time at least he was profoundly influenced by German idealism, and by Wordsworth's poetry. We now come to consider three other influences which left a deep and permanent impression on his mind.

(1) In 1837 the two first volumes of Comte's *Philosophie Positive* were introduced into England; by the beginning of 1838 Mill had read them and been profoundly impressed. From 1841 to 1846 he corresponded with Comte (whose private life was much less lofty than his philosophical writings might lead one to expect). "I have read and re-read your *Cours* with a veritable intellectual passion." Mill once referred to Comte as "that one of the great minds of our time which I regard with most esteem and admiration." Comte, who hated metaphysics, maintained that economics was a mere

*Preface to the First Edition (1848).

abstraction, that such a science was impossible, since there could be but one science of society (sociology) which deals with *every* aspect (and not merely with one) of man's activities. In sociology, moreover, Comte insisted results are obtained not by the deductive method, not, that is, through reasoning about assumed psychological principles, but by comparing one period of history with another. According to him, there are two different theories of society. One *statical*, which depends upon the careful examination of all the influences acting on a given state (England, for instance) at one particular period; the other *dynamical*, which discusses how the conditions of this particular period in history (English history, for instance) are the result of conditions which preceded it. It is obvious how much at variance Comte's doctrine is with the doctrines in which Mill had been so carefully trained.

(2) The second influence was that exerted by the French Socialists, Saint-Simon,* Fourier,† Proudhon,‡ and Lassalle.|| St. Simonians

*Saint-Simon, (1760-1825), a French noble who at the Revolution abandoned his rank. Imprisoned as a suspect, when liberated he set himself to preach a new gospel. He sought to give mankind a "positive" morality which would replace religious dogma. He is thus the father of "positivism." For the last eleven years of his life he worked at economics. He sought to abolish all class distinctions and divided mankind into bees and drones. Government was largely to disappear, "France was to be turned into a factory, and the nation organised on the scale of a vast workshop." Saint-Simon is often called the father of Socialism. "Saint-Simon's works were scarcely ever read." His influence was exerted through a band of brilliant disciples, "the Saint-Simonians," who banded themselves into a sort of sect. Their famous motto was "Each man according to his capacities, each man's capacities according to their works" (see Gide, *Political Economy*, 421-422, Eng. trans., Gide and Rist, 198-230). They demanded the suppression of private property, the extinction of inheritance and the centralised control of industry by the arm of an omniscient state (Gide and Rist, p. 169).

†Charles Fourier, (1772-1837), like Owen a visionary socialist. He wanted to divide men into groups, phalanxes he termed them, of about 1,700. These were to have a common house, the "phalanstery," with land attached. Each was to choose his own employment and receive a small wage, what remained was to be divided between labour, capital, and talent. (See Gide, *Charles Fourier*).

‡Pierre Joseph Proudhon, (1809-1865), French socialist, published a tract, *Qu'est ce que la propriété* (What is property?), to which he gave the famous answer, "Property is theft." Labour he held is the only source of production. Proudhon criticised the earlier socialists severely. "Socialism is a mere nothing," "Communism is the religion of misery"; advocated an "Exchange Bank" which would do away with interest. See Gide and Rist, pp. 290-321.

||Ferdinand Lassalle, (1825-1864), German socialist of the Marxian school, helped to found the Social Democratic Party in Germany: successful agitator especially in the Rhineland district, urged the establishment of the Allgemeiner Deutscher Arbeiterverein (General association of German workers). Lassalle was killed in a duel. Round this George Meredith wrote his celebrated novel, *The Tragic Comedians*.

For the most part the *laissez-faire* theory of government was purely negative. The less government interfered the better. Obviously, Socialism which magnifies the State or at least the society at the expense of the individual, is the very antithesis of *laissez-faire*. Then, too, the socialists insisted that the desire for individual gain can never be the proper motive for economic activity, whilst the earlier economists insisted on the paramount importance of the individual's efforts to "better his own condition." In so far, then, as Mill fell under socialist influence—though he never became a socialist in the proper sense of the term—he broke loose from the sheet-anchor of his earlier economic faith.

Mrs. Mill

(3) But there was someone who exerted a much deeper influence on Mill than Comte or Coleridge, than Wordsworth or the French socialists, and that was the lady who eventually became his wife. Mill first met Mrs. Taylor in 1831, and at once a warm friendship sprang up between them—a friendship that caused the gravest misgivings to his father and his friends. He married her in 1851 and after her death at Avignon in 1858 took up his residence in that city so as to be near her grave. He always claimed that his chief contribution to economic science was the distinction he drew between the laws which govern production and those which regulate distribution. This he tells us he had learnt from the St. Simonians, but "it was made a living principle, pervading and animating the book by my wife's promptings." "The chapter on the 'Probable Future of the Labouring Classes' is entirely due to her." In 1857 the East India Company was threatened with extinction. Mill, who became head of India House in 1856, had to draft the petition which was presented to Parliament on behalf of the East India Company. Earl Grey maintained that this petition was the ablest State paper he had ever read.

After his wife's death Mill published his great essay *On Liberty*,* his *Utilitarianism*—his treatise on ethics—his *Examination of Sir William Hamilton's Philosophy*,† his *Thoughts on*

*The dedication of this work is famous, "To the beloved and deplored memory of her who was the inspirer, and in part the author, of all that is best in my writings—the friend and wife, whose exalted sense of truth and right was my strongest incitement, and whose approbation was my chief reward—I dedicate this volume . . ."

†Sir William Hamilton, Bart. (1805-1865), Scottish philosopher. Professor of Logic and Metaphysics, Edinburgh University 1836, very influential teacher. His *Lectures*, edited by Veitch, were subsequently published: chief works *Philosophy of the Unconditioned* (1829), Edition of Reid's works 1846 (Thomas, Reid, 1710-1796, was the father of the "Scotch" School, or common-sense school, of philosophy). Hamilton was influenced by Reid and Kant.

Parliamentary Reform and his *Treatise on Representative Government*. Mill's *Liberty* is a noble plea on behalf of the individual. Like most of his work, it easily lends itself to criticism and is the work of a man rooted in the 18th century, though deeply conscious of the new truths the 19th century revealed. Of his *Utilitarianism* the less said the better. Bentham maintained that the test of conduct was the amount of pleasure it produced. "The quantity of pleasure being equal," he bluntly insisted "push pin is as good as poetry." Mill endeavoured to maintain that pleasures vary in quality as well as quantity. "Here again," says Courtney, "we see Mill trying to engraft on the older stock of Benthamism the blossoms of an alien growth."* Thirty years ago, there was scarcely a British University in which students of moral philosophy were not set the easy task of criticising this impossible book.

From 1865 to 1868, Mill was a Member of Parliament. He had refused to canvas his constituents or to incur any expense in connection with his election. He had made it clear from the outset that he would not devote his time to the service of local interests and he never truckled to any voter in his division. "Did you say, of the English working classes" he was asked at one meeting, "that though they differed from those of other countries in being ashamed of lying, they were generally liars?" "I did," was the answer that was received with loud applause. His brief parliamentary career was disappointing. Everyone recognised his high character. Gladstone described him as "the saint of rationalism," yet it was said that "Nature had evidently not intended Mill for a debater or an orator," and Gladstone had to admit that his speeches seemed to come "as from a statue." In 1867, Mill published his work on the subjection of women—he was an ardent feminist. On 8th May 1873 he died. His favourite text had always been, "the night cometh when no man can work." When told that his end was near he calmly answered "My work is done." After his death two works were published, the first his *Autobiography*, which gives a fascinating account of his early life, the second his *Essays on Religion*, of which Courtney well says, 'To some the book came as a disappointment, to others as a relief, to all as a surprise.'† Mill was self-contradictory to the last.

*Courtney *Life of Mill*, 132.

†Courtney, 165.

II.

(1) His style

Most books on economics soon cease to be read; indeed, we can easily count on our fingers the number of those that are likely to endure. Amongst this select group Mill's *Principles* is sure to find a place. For this there are three reasons. To begin with, Mill was the first economist since Adam Smith who was a master of the English language. A great stylist has an enormous advantage over his less gifted fellows; in many, perhaps in most instances, a man is remembered not so much for what he says as for the way in which he says it. Few would maintain that Mill was a great thinker, none can deny that he was a great expositor. His stately periods, his lucid English, affords and will long continue to afford delight to all who love good writing. Little as they might understand or sympathise with his views, working men felt that they had a warm friend in John Stuart Mill, as they afterwards came to feel that they had a firm friend in Alfred Marshall. Mill's sympathy and affections were stronger than his powers of thought. "It is a great treatise," says Sir William Ashley,* "conceived and executed on a lofty plane, and breathing a noble spirit." Like all which Mill wrote, it exercised a deep influence over at least one generation. Even those who were most conscious of Mill's defects as a thinker, could say with Courtney, "In logic, in ethics, in politics, we have nourished ourselves at his springs."

(2) A great summary

We have seen that in the *Wealth of Nations*, Adam Smith summed up all previous economic writing and rendered it superfluous, we have seen that Mill deliberately attempted to do in the 19th century what Adam Smith had done in the 18th and we have seen that Stuart Mill was *not* an Adam Smith. Nevertheless, the fact remains that in Mill's *Principles* we have an admirable summary of the work done by his predecessors. His knowledge is so extensive, his sense of fairness so pronounced, his mastery of lucid English so profound, that he makes a most admirable expositor.† Many a

**Principles of Political Economy*, by John Stuart Mill. Edited by Sir W. J. Ashley. Introduction xxiv.

†Note however the following qualification on which Marshall insists "His style was that of a man having great powers of exposition; but in one respect this power injured him. For it caused men to assume that whatever error appeared in his writings was due, not to imperfect presentation of clear thought, but to perfect presentation of confused thought. They have overlooked the fact that this power could not avail him for the task of drilling a large body of thoughts into such order that they should in all their movements present a clear front to the reader. For this task time alone avails." Marshall

man, for instance, has found it easier to read and understand Mill's reproduction of Ricardo, than to read Ricardo himself. Nor need we be surprised at this when we remember that there is a certain amount of truth in the charge which Nassau* Senior brought against Ricardo, "the most incorrect writer who ever attained philosophical eminence." This leads us to call attention to another fact. Mill's version of the doctrines of the older economists is much more attractive than the form in which these doctrines were first presented. When we remember that he lived in a dogmatic age when Free Trade and *laissez-faire* seemed to be as firmly established as the eternal hills, at a time when an English statesman could assure his countrymen that Protection was not only dead but damned, when a French savant could say with equal assurance and perhaps with even more complacency, "to speak of socialism to-day is to deliver a funeral oration," we feel how far this sense of cocksureness, this conviction that the main problems of economics were finally disposed of, is absent from Mill. True, he had his lapses as when he said of the doctrine of value, "Happily there is nothing in the laws of value which remains for the present or any future writer to clear up;† the theory of the subject is complete"; but, as a rule, though he can beat times both "pontifical"‡ and "magisterial"||, he writes in a very different strain. The pity that filled his heart for the unfortunate, his sympathy with men and women whose lot was hard, is apparent on almost every page. It may be that as he destroyed Bentham's theory of morals by seeking to improve it, by insisting that the quality of pleasure should be taken into account as well as its quantity; so, by introducing changes sometimes of an ethical, sometimes of a sentimental kind into their grim doctrines, he did as much as any man to discredit the old masters whose views he sought to expound. But whether this be true or not we feel the truth of Sir adds that Mill had "small leisure left from official work."—*Fortnightly Review*, April 1876.

*Nassau William Senior, (1790-1864), economist of the "Classical" School. Professor of Political Economy at Oxford, 1825-1830, 1847-1852. His article on Political Economy in the 1836 *Encyclopædia Britannica* was subsequently reprinted. "This small volume," says Gide, "may be regarded as the earliest manual of political economy." It was Senior who introduced the analysis of abstinence or saving, into economics.

†When we come to deal with Jevons we shall find that it is precisely here that he rightly claims to be an innovator. What Jevons did the Austrian writers also did. See Smart, *An Introduction to the Theory of Value on the lines of Menger, Wieser, and Bohm-Bawerk*, (1891).

‡Marshall.

||Ashley.

William Ashley's words, that whilst keeping the substance of the old economic doctrine intact, "he sought to surround it, so to speak, with a new environment."* We are sometimes repelled by the harshness of Ricardo, and even of Malthus,† we are never repelled by harshness in Mill. His weakness indeed lies in the very opposite direction. He is something of a sentimentalist. In any case the fact remains that there is no more attractive exposition of "Classical doctrine" than that of Mill.

There is an eloquent passage in †Hegel's *Philosophy of History* which tells us "that the owl of Minerva does not start upon her flight until the evening shadows have begun to fall." By the time that a great philosopher has built up a system of thought to explain the universe, the world has moved forward and left his theories far behind. "Our little systems have their day." In no sphere is this more pronounced than in the sphere of economics. Methods of manufacture, modes of transport, domestic interference on the part of government, international relations, these and a hundred other things which the economist has to take into account, are always changing. No matter how admirably the economic world of to-day is described and analysed and explained, description, analysis and explanation alike will very soon become old-fashioned. Times change and economics like other things changes with them. It is very unlikely that an economist of the first rank will try in the near future to write a treatise dealing with the whole of economic science. Little text-books will continue to pour from the press; but a text-book is not a treatise. Marshall's *Principles* seems to stand alone. Economics is becoming too vast a subject for any man to attempt to deal with the whole of it. One man selects one subject and writes a monograph on that, another man treats of another branch of economic science. Fewer and

A system

*Introduction ix. †cf. his famous parable.

‡Georg Wilhelm Freiderich Hegel, (1770-1831), next to Kant, the greatest of German philosophers. Professor at Heidelberg 1816, at Berlin 1818. His chief works are *Logic*, *Philosophy of Rights*, posthumous lectures on *Aesthetics*, *Philosophy of Religion*, *Philosophy of History*. Hegel's main thesis is that the universe is a process of the development of an Idea which attains self-consciousness in man. He divides all history into four periods, (1) in the East, where the rights of men are unknown; (2) in Greece, where individuality is predominant and some men are free; (3) in Rome, where subjective and objective, the individual and the State, both exist but are not completely united; (4) in the Teutonic nations (he was really thinking of Prussia!) where these contradictions are transcended and all men are free. This is what Hegel would have termed the "logical" order, not necessarily the actually temporal order, of the development of the Idea of Freedom. See Caird's *Hegel*.

fewer men of ability will attempt to deal with the science as a whole.*

Yet tracts and monographs good so far as they go are far from satisfactory. We crave for systematic treatment; Mill gives it us. In his *Principles* we get a bird's eye view of the whole field: we do not lose the forest—as now we are so apt to do—in the trees.

Since then, to use †Cossa's words, "Mill's *Principles* are the best résumé, the fullest, most complete and most exact exposition of the doctrines of the classical school," our first business is to ask what these doctrines were. Nor can we do better than to follow the account given by Professor Gide.‡ With characteristic lucidity he sums them up under seven heads, each of which the older economists regarded as a natural law. (1) There is the Law of Self-interest, which we have found so clearly expounded by Adam Smith. "It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest."|| (2) Next there is the Law of Free Competition, "every restriction of competition is an evil . . . every extension of it is always an ultimate good." (3) In the third place there is the Law of Population promulgated by Malthus. Probably Malthus never had a more ardent disciple than Mill. It must, however, be clearly understood that he was a Malthusian not a Neo-Malthusian.§ He was even more ascetic than Malthus, strongly urging, for instance, that there should be continence between married couples. "It was the opinion of many," says Professor Bain¶ "that while his estimate of

Economic
"Laws"

*Cf. J. M. Keynes: "An economic treatise may have great educational value. Perhaps we require one treatise, as a *pièce de résistance*, for each generation. But in view of the transitory character of economic facts, does not the progress and the daily usefulness of economic science require that pioneers and innovators should eschew the treatise and prefer the pamphlet or the monograph? . . . Economists must leave to Adam Smith alone the glory of the quarto, must pluck the day, fling pamphlets into the wind, write always *sub specie temporis*, and achieve immortality by accident, if at all." *Memorials of Alfred Marshall*, pp. 35, 36.

†Luigi Cossa, (1831-1896), Italian economist.

‡*History of Economic Doctrines*, Gide and Rist, English Translation, pp. 354-366.

||See *supra*, p. 62 §See p. 67

¶Alexander Bain, (1818-1903), Professor of Logic, Aberdeen University, 1860-1880, wrote the *Senses and the Intellect* (1855), *The Emotions and the Will* (1859). Bain belonged to the "Materialistic" School, based psychology on physiology; explained mental phenomena largely by the principle of "association"; intimate friend of Grote and J. S. Mill: was the founder of the well known magazine, *Mind*.

pure sentimental affection was more than enough, his estimate of the sexual passion was too low." (4) Next, there is the Law of Supply and Demand, according to which price varies directly with demand, and indirectly with supply. (5) The Law of Wages, the "Brazen Law" as Lassalle called it. (The cost of labour depends upon the cost of its production: the amount from which wages can be paid is strictly limited. (6) The Law of Rent as we have seen, lies at the very root of Ricardo's system. Mill extended the law so as to embrace ability. (7) Finally, there is the Law of International Exchange which was first propounded by Ricardo. Courtney has pointed out that Mill develops Ricardo's doctrine, that he clothes a skeleton with flesh, translates the most abstract principles into concrete language and makes them explain familiar facts.*

Mill's
contribution

Trade

Supply and
demand

Abandons wage-
fund theory

In its treatment of International Trade, Mill's work constitutes an improvement on that of his predecessors. We are therefore led to ask if there were any other department to which he made some definite contribution. The answer seems to be that in discussing the Law of Supply and Demand, he introduced the theory that price is fixed at the point where the quantity offered is equal to the quantity demanded. In other words, he introduced the idea of equilibrium. There are two kinds of value, an unstable value which depends upon the variations of supply and demand; a permanent, natural or normal value which is regulated by the cost of production.† Money, for instance,‡ has a temporary value which is determined by two factors (a) the quantity in circulation; (b) the amount demanded for the purposes of exchange. But in addition money has a permanent value which is reached after all oscillations cease, a value which is determined by the cost of mining the precious metals. In the third place, Mill performed a complete *volte-face*, withdrew what he had said with regard to the wage-fund theory. But Marshall has shown that the doctrine of wages which Mill offered in lieu of the wage-fund theory is far from satisfactory. "Mill attempted to discuss wages before he had reached the theory of value. He was thus drawn on to an incomplete statement, and the correction of it in his fourth book has not been generally noticed. In doing this he allowed his zeal for giving a more human tone to economics to get the better of his judgment, and to hurry him on to work with an incomplete analysis. For by putting

*J. S. Mill, p. 89. *Life of John Stuart Mill*, by W. L. Courtney, p. 99.

†Bk. III, 3, 1.

‡Cf. Ashley's *Mill*, p. 620.

his main theory of wages before his account of supply and demand, he cut himself off from all chance of treating that theory in a satisfactory manner."*

In 1831, Richard Jones, of Haileybury (1790-1855), published *An Essay on the Distribution of Wealth and on the Sources of Taxation*, in which he criticised Ricardo. He insisted that to reason from conditions in England alone was to run grave risk of reaching false conclusions, maintained that only by making wide investigations in different countries could such false conclusions be avoided. In other words, he attacked Ricardo's deductive method. In the second place he maintained that, as a matter of fact, competition is not the only factor which determines rent. Rent as we know it in actual life is often settled by custom.† Ingram maintains that Mill used this work "but gave its merits but faint recognition." Whether this be true or not the fact remains that like Jones, Mill ^{Rent} classifies peasant rents into serf-, metayer-, ryot-, cottier-, rents. ^{R. Jones criticises Ricardo}

In other words, he admits that in the world of actual life, as against the world of economic theory, rent is largely influenced by custom, not solely by competition. "This recognition," says Cairnes, "threw an entirely new light over the whole problem of land-tenure, and plainly furnished grounds for legislative interference in the contracts between landlords and tenants." Mill has left us in no doubt as to what he regarded as the most important contribution which he made to economic theory. He endeavoured to draw a hard and fast line between the laws which regulate production and those which control consumption. To Mill the former were "real laws of nature dependent on the properties of objects," the latter "subject to certain conditions, depend on human will." *The Principles of Political Economy* yielded to none of its predecessors in aiming at the scientific appreciation of the action of these causes under the conditions which they presuppose; but it set the example of not treating those conditions as final. The economic generalisations which depend not on necessities of nature but on those combined with the existing arrangements of society; it deals with only as provisional and as liable to be much altered by the progress of social improvement. I had, indeed, partially learnt this view from the thoughts awakened in me by the speculations of the

*Marshall, *Principles*, 620.

†Whatever else he was or was not Ricardo was not a fool. As a landed proprietor he knew perfectly well the part that custom played in determining the rent of land. See on Rent Marshall *Principles*, pp. 708 ff.

St. Simonians ; but it was made a living principle pervading and animating the book by my wife's promptings."* In other words, Mill believed that production was controlled by immutable laws, that distribution is modified by successive changes in society. Here, as elsewhere, a battle rages in Mill's mind between old influences and new. Ricardo and Comte or, if you prefer it, Ricardo and Mrs. Mill fight for the mastery and complete victory rests with neither side. It is obvious enough that this arbitrary distinction between production and distribution offers no real way of escape. We have only to remember such things as Factory Acts, minimum wage bills, and so forth to realise this fact.

Theory and
practice

Finally, Mill insists that "economic art" does not follow directly from "economic science." He confined the term "science," as Sir William Ashley shows, "to the abstract argument, and left the determination of its relation to actual conditions to what he called the "sagacity of conjecture."†

Thus we see that Mill's work is a picture of the Victorian age, in which much of the 18th century is left behind for ever. "Under the combined influence of Comte, the Socialists, and of the general tendencies of public sentiment, he set himself to bring into prominence the human, as opposed to the mechanical, element in economics."‡

That he failed to fuse the old economic doctrine with the newer opinions which made such strong appeal to his heart, there can be no doubt. That his attempt did credit to his honesty of mind and his nobility of character is evident. His very failure was a species of success. In any case it inspired those who differed from him to face both old conditions and new problems in another way.

* *Autobiography*, p. 234, (Popular edition, 134).

† Ashley's edition of *Mill*, p. xx.

‡ Marshall's *Principles*, 620.

CHAPTER V

W. S. JEVONS (1835-1882)

A passage in Jevons' journal gives the keynote to his character "There is one thought that fills my soul with dread, it is the thought of

"That one talent which is death to hide
Lodged with me useless."

Living in an age when physical science was advancing from triumph to triumph, he felt that mental and moral science, to say nothing of economics, was lagging sadly behind, and he felt called upon by God to do his utmost to adjust the balance. Consumed with the desire to be what he called a "powerful good" to affect the thinking not only of a nation but of the whole world, he deliberately abandoned an honourable and lucrative post to face the prospect of certain poverty and possible neglect. It was his purpose to "reform abstract science" and to help "in the establishment of the moral and political sciences." He knew his limitations, his lack of imagination and wit, his inability to write with charm and distinction. At times, indeed, he shrank from the prospect of unrelieved labour. But he knew that no man of his age had a more independent mind; that he was a born statistician; that few men could work as hard as he. "What success I have," he says, "comes from labouring without cessation from the earliest years I can remember." Jevons was a scientist, not a philosopher. He made certain contributions to logic; he did nothing to affect men's minds with regard to the great ultimate questions, Man, the World, God, which have engaged the attention of philosophers of every age. He was neither an Aristotle nor a Kant.* Even in economics he was by no means so unique as he supposed. Marshall, far from blind to his defects, maintained that the great body of Jevons' work "will probably be found to have more constructive force than any, save that of Ricardo, that has been done during the last hundred years." But no one was more surprised than Jevons to learn that his mathematical theory of

*Immanuel Kant, (1724-1804), German philosopher, the greatest thinker of modern times. Appointed professor at Königsberg in 1770. His great work, *The Critique of Pure Reason*, was published in 1782. It was followed by *The Critique of Practical Reason* (1788) and the *Critique of Judgment* (1790). Kant shows the weakness alike of Hume and the "Rationalists." He bases all knowledge on experience, but shows the part the mind plays in building up this experience. For a lucid account of Kant, see A. D. Lindsay's *Kant* (The People's Books).

economics had been anticipated by Gossen* and independently discovered by Walras.† The last to disparage the achievements of others, the fact remains that he did not know how much others had done on lines which he thought peculiarly his own. Yet some of his work will last ; indeed, it has been already embodied in economic theory. Perhaps, however, he will be chiefly remembered as a great statistician. Of his statistics a competent authority once said, " The pure honesty of Mr. Jevons' mind, combined with his special intellectual fitness for the work, have made them models for all time."‡

William Stanley Jevons was born in Liverpool on 1st September 1835. His father was an iron-merchant, a man of ability who took a keen interest in engineering. He knew Stephenson|| and is said to have constructed the first iron boat that sailed on sea-water. His wife, Mary, a cultivated woman who had won some reputation by writing verse, was the daughter of William Roscoe, the biographer of Lorenzo de Medici and Leo X. To Mary Jevons, her son owed his passionate love of music. " Music is always to me the same, a condition of my existence, part of me." In 1850 Stanley Jevons was sent to University College School, London ; a year later he entered University College. There he was marked out by his industry and his proficiency in chemistry. When eighteen he was offered the post of Assayer in the new mint about to be established in Sydney. His father had met with business reverses, the family fortunes were low, and the salary of £675 attractive, so though he felt leaving England, he accepted the offer. For two months he studied French methods of assaying in Paris and in June 1854 set sail for Australia. In Australia

*Gossen, Hermann Heinrich, (1810-1858), an obscure civil servant in Prussia, whose book, *Entwicklung des Gesetze des menschlichen Verkehrs*, (Development of the Laws of Human Commerce), was published in 1854. See account of the rediscovery of the book by the late Professor Adamson in Jevons' *Theory of Political Economy*, pp. xxxii-xxxix. For a good account of Gossen see Palgrave II, 231-233.

†Léon Walras, French economist, (b. 1834), Professor of Political Economy at Lausanne 1870-1892, Rector of the Academy of Lausanne, published in 1874 *Principe d'une théorie mathématique de l'échange* (Principle of a mathematical theory of exchange) ; *Eléments d'économie politique pure, ou théorie de la richesse sociale*, (Elements of pure political economy, or a theory of social wealth), 1877. See a long list of Walras's writings in Palgrave, Vol. III, pp. 654-655.

‡Marshall.

||George Stephenson, (1781-1848), worked as a collier and brakesman ; in 1815 received one thousand guineas at a public entertainment for having invented a safety-lamp. 1829 gained first prize of £500 for inventing the best engine—the Rocket.

his shyness made him somewhat of a recluse ; he spent his leisure in making meteorological observations, which were published week by week in the *Empire* newspaper.

In 1857 he began to take an interest in economics. From habitual introspection he had reached the conclusion that his "insight into the foundations and nature of the knowledge of man" was "deeper than most men or writers," that it was his "mission" to apply himself to such subjects, that though, if he remained in Australia he had good prospects of earning between £1,000 and £2,000 a year, he was determined "to be a powerful good in the world." In 1859, therefore, he re-entered University College, read mathematics, economics and philosophy, and in 1862 took his M.A. "in logic, moral philosophy, and political economy, and was awarded the gold medal given to the best candidate in each branch." By June 1860 he had discovered his main economic theory and, as he was always afraid that someone might anticipate his discoveries, sent his *Theory of Political Economy* to be read at the British Association meeting of 1862. In the economic class at college, he had only taken the third place. This was due to the fact, he felt, that "difference of opinion" had "prejudiced the professor against his answers," and he was determined "to fully avenge himself when" he brought out his *Theory of Economy* and re-established the science on sensible lines." Much to his annoyance the paper—which contains the germs of all his economic doctrine—attracted small attention. In 1861 he planned a statistical atlas with thirty plates which was intended to throw light "upon the commercial storms of 1793, 1815, 1826, 1839, 1847, 1857, &c." As no one would publish the atlas, he brought it out at his own expense. Finding that he could not earn a living either by his pen or by acting as a "searcher" at the British Museum, he accepted the post of tutor at Owens College, Manchester. He subsequently became, in 1866, Professor of Logic and Mental and Moral Philosophy, and Cobden Professor of Political Economy at Owens College, a post he held for nine years. In his efforts to combine research work with college lecturing he ruined his health and had to resign in 1875. Meanwhile in 1863 he had produced a tract on *A Serious Fall in the Value of Gold, and its Social Effects set Forth*. This paper attracted considerable attention and Jevons was placed "amongst the rising economists of the day." Early in 1864 he published his *Pure Logic or the Logic of Quality apart from Quantity*.

In November 1864, he was elected a Fellow of the Royal Statistical Society (he subsequently became a Fellow of the Royal Society) and in 1865 published his famous essay, *The Coal Question, and Inquiry concerning the Progress of the Nation and the Probable Exhaustion of our Coal Mines*. His conclusions are expressed in these words:—"We cannot long maintain our present rate of increase of consumption, we can never advance to the higher rates of consumption . . . the check to our progress must become perceptible considerably within a century from the present time." When Jevons wrote, about 86,000,000 tons were raised. Twenty years later, when he died the annual output had increased to 163,000,000 tons. In 1868 he was asked to give evidence before the Commission on International Currency, and in 1869 was consulted by the Chancellor of the Exchequer with regard to the pressure of taxation on different classes.

For several years he had been working at logic and in 1870 published his *Elementary Lessons on Logic* which soon became a standard text-book. This was followed in 1871 by his *Theory of Political Economy*, and in 1874 by his *Principles of Science*. The same year he entered into correspondence with Walras, the French economist, who had independently discovered the mathematical theory of economics. "Your theory," Jevons wrote, "substantially coincides with and confirms mine." "I flatter myself," he says in a subsequent letter, "with the hope that the unity of our results arises from the best cause, namely, that we have both reached the truth, which must be one." Jevons, who had examined at London University, was in 1874 appointed one of the examiners for the Mental and Moral Science Tripos at Cambridge, and there met with yet another economist (Alfred Marshall) who had "entertained notions of a quantitative theory of political economy."

In 1875 he published his *Money and the Mechanism of Exchange*, and in June 1876 his *Primer of Logic*. In October 1876 he was appointed Professor of Political Economy at University College, London. In 1878 he published his *Primer of Political Economy* and read to the British Association a paper in which he expounded his celebrated theory that commercial crises are connected with sun-spots. He himself admitted that his theory had "the appearance of being a little too ingenious," but added that he "had great confidence in its substantial truth."

In 1880 he came to the conclusion that his health was too bad to allow him to continue as a professor. "For years past,"

he wrote, "I have never entered the lecture room without a feeling probably like that of going to the pillory. I shall never lecture, speechify, or do anything of that sort again if I can possibly help it." Jevons' health did not perceptibly improve and on account of heart trouble he was drowned whilst bathing on 13th August 1882. He had planned several works—his *magnum opus* was to have been a big book on political economy—which were never written. Despite the fact that he died when forty-six, he wrote more than any English economist with the possible exception of Mill. His industry was almost incredible. Some inner dæmon seemed to urge him to ceaseless effort. He felt that he was answering the call of Heaven to be "a powerful good in the world." Of all English economists none, with the doubtful exception of Ricardo, had a more independent or original mind.

When Jevons wrote his *Brief Account of a General Mathematical Theory of Political Economy*, for the British Association in 1862, he felt as he continued to feel for many years, that he was a daring rebel. For fourteen years men had appealed with almost unquestioning faith to the authority of J. S. Mill. To Jevons' mind this seemed little less than a calamity. "A despotic calm," he said, "is usually the triumph of error. In the republic of the sciences sedition and even anarchy, are beneficial in the long run to the greatest happiness of the greatest number." "I protest against deference for any man, whether John Stuart Mill, or Adam Smith, or Aristotle, being allowed to check inquiry." Jevons was a rebel, he was a heretic as well. He disbelieved in what he termed the "maze of the Ricardian economics," and felt that when at length "a true system" came to be established it would be seen "that that able but wrong-headed man, David Ricardo, shunted the car of economics on to a wrong line—a line, however, on which it was further urged towards confusion by his equally able and wrong-headed admirer, John Stuart Mill."*

The wise man tells us that there is nothing new under the sun. In course of time Jevons came to learn that a German, Gossen, had anticipated his mathematical theory by ten years, that all unknown to each other Walras, a Frenchman, had reached conclusions that were almost identical with his own. Yet this does not detract from the originality of Jevons' work. There is perhaps no English economist who owed so little to others, who relied so confidently on himself. What

**Theory of Political Economy*, Preface to Second Edition.

(1) Value
determined by
demand

then was the revolution which Jevons sought to effect? It was twofold. In the first place he tried to show that all true economic theory must begin with the consideration of "wants" rather than with a discussion of "efforts," that the value of a commodity depends not on its cost of production but on its capacity to satisfy some want. (In this, of course, he agrees with writers of the Austrian School.)* It was almost inevitable that in a manufacturing country like England, the earlier economists should have emphasised supply rather than demand, should have sought to measure the value of an article by the amount of labour required for its production. Jevons insists that this is entirely wrong. It is the consumer, he maintained, not the producer, who determines the value of a commodity. To him it is a matter of utter indifference how much labour has gone to its making, if, after all, it is impotent to satisfy his needs. "Ye say 'tis valuable," Mr. Dooley observes, "for ye spent yer days and nights making it for me; but th' value of anything is how much I'll be wanting it." In 1858 Brunel and Russell designed the "Great Eastern." Despite her six masts and 32,000 tons displacement, the ship was an utter failure. She was too slow for passenger traffic, too great in draft and too unwieldy for the cargo trade, so she was sold for her value as scrap-iron and broken up at Glasgow some forty-five years after she was launched. Unless a commodity or an article is of definite use to some one, it is worthless no matter what it cost to produce.

(2) Mathematical
method

Jevons maintained that since economics dealt with quantities it must be mathematical in form. "My theory of economics," he says, "is purely mathematical in character . . . The theory consists in applying the differential calculus to the familiar notions of wealth, utility, value, demand, supply, capital, interest, labour, and all the other quantitative notions belonging to the daily operations of industry. As the complete theory of almost every other science involves the use of that calculus, so we cannot have a true theory of economics without its aid."

*"Despite its cosmopolitan origin, the school is generally spoken of as the Austrian school, because its most eminent representatives have for the most part been Austrians. Among these we may mention Menger, Sax, Wieser, Böhm-Bawerk." (Gide and Rist, p. 522 n.) The best introduction to the writers of this school is Smart's able little book, *An Introduction to the Theory of Value on the lines of Menger, Wieser, and Böhm-Bawerk*. The Austrian school, which stresses the doctrine of "final" or "marginal," utility, is sometimes called the "psychological" school, because it looks at value primarily from the standpoint of the consumer.

"Nature," says Jeremy Bentham, "has placed mankind under the governance of two sovereign masters—*pain* and *pleasure*. It is for them alone to point out what we ought to do, as well as to determine what we shall do." Starting from this assumption, Jevons follows Bentham in maintaining that the value of a pleasure or a pain varies with its intensity, its duration, its certainty or uncertainty, its propinquity or remoteness. "To satisfy our wants to the utmost with the least effort, to *maximise pleasure* is the problem of economics." Hence, a commodity is "any object, substance, action or service, which can afford pleasure or ward off pain." Utility is not a quality inherent in things, it is "a circumstance of things arising out of their relation to man's requirements, and thus the utility of a thing varies with the quantity of it already in our possession. "We cannot live without water, and yet in ordinary circumstances we set no value on it. Why? Because our supply of water is unlimited, and the degree of utility (of any commodity) varies with the quantity of commodity and ultimately decreases as that quantity increases."

Perhaps the best way to understand Jevon's theory (though he was far from being a master of vigorous English) is to state it in his own words: "Let us imagine the whole quantity of food which a person consumes on an average during twenty-four hours to be divided into ten equal parts. If his food be reduced by the last part, he will suffer but little; if a second tenth be deficient, he will feel the want distinctly; the subtraction of the third tenth part will be decidedly injurious; with every subsequent subtraction of a tenth part his sufferings will be more and more serious, until at length he will be upon the verge of starvation. Now, if we call each of the tenth parts *an increment*, the meaning of these facts is, that each increment of food is less necessary, or possesses less utility, than the previous one." Man's wants are satiable, the more of a commodity I already possess the less valuable will each additional increment prove until I reach a point where it is just worth my while to acquire it. The utility of the last increment I acquire is termed by Jevons, the final degree of utility, though most economists now prefer to use the term, Marginal utility (*Grenznutzen*, of the Austrian school). As we have said, the "final" or "marginal" utility method of which there are hints in the writings of a French engineer, Dupuit (*La mesure de l'Utilité des Travaux publics*, 1844) was discovered by Gossen, and is generally associated with writers of the Austrian school, yet Jevons discovered it

"Final"
utility

independently and it is one of the most valuable contributions he made to economic science. "The idea of final utility," says Böhm-Bawerk, "is the 'open sesame' the key to the most complicated phenomena of economic life, affording a solution of its most difficult problems."*

Exchange

Jevons next passes on to deal with the theory of exchange. He disliked the term "value" and tried to dispense with its use: for he maintained that it was an ambiguous term which had at least three different meanings, (1) value in use, i.e. total utility; (2) esteem, i.e. final (or marginal) degree of utility; (3) purchasing power, i.e. ratio of exchange.

He formulated his theory as follows:—

"Cost of production determines supply.

Supply determines final degree of utility.

Final degree of utility determines value."

In a very severe criticism of this catena, Marshall† says: "It is as though when three balls A. B. and C. rest against one another in a bowl, instead of saying that the position of the three mutually determines one another under the action of gravity, he (Jevons) had said that A. determines B., and B. determines C. Some one else, however, with equal justice might say that C. determines B. and B. determines A., and in reply to Jevons a catena rather less untrue than his can be made by inverting his order and saying:—Utility determines the amount that has to be supplied: the amount that has to be supplied determines cost of production.

Cost of production determines value, because it determines the supply price which is required to make the producers keep at work."

Market

Exchange is effected in a market, which Jevons defines as "two or more persons dealing in two or more commodities, whose stocks of those commodities and intentions of exchanging are known to all." "In the same open market, at any moment, there cannot be two prices for the same kind of article." The whole theory of exchange is stated in these words: "The ratio of exchange of any two commodities will be the reciprocal ratio of the final degree of utility of the quantities of commodity available for consumption after the exchange is completed." This highly complex statement is illustrated in the following way: ‡ "Imagine that there is one trading body possessing only corn, and another possessing

*Böhm-Bawerk, *The Austrian Economists in Annals of the American Academy of Political and Social Science*, 1891. †*Principles of Economics*, pp. 566-567.

‡*Theory of Political Economy*, pp. 95, 96.

only beef. It is certain that, under these circumstances, a portion of the corn may be given in exchange for a portion of the beef with a considerable increase of utility. How are we to determine at what point the exchange will cease to be beneficial? This question must involve both the ratio of exchange and the degrees of utility. Suppose, for a moment, that the ratio of exchange is, approximately, that of ten pounds of corn for one pound of beef; then if, to the trading body which possesses corn, ten pounds of corn are less useful than one of beef, that body will desire to carry the exchange further. Should the other body possessing beef find one pound less useful than ten pounds of corn, this body will also be desirous to continue the exchange. Exchange will thus go on until each party has obtained all the benefit that is possible, and loss of utility would result if more were exchanged. Both parties, then, rest in satisfaction and equilibrium, and the degrees of utility have come to their level, as it were."

To Jevons, capital is "the aggregate of those commodities Capital which are required for sustaining labourers of any kind or class engaged in work." It is the means which enable us to bridge the interval between the moment when labour begins and its purpose is finally achieved. Interest is "the rate of Interest interest of the produce divided by the whole produce." Jevons' son claims that his father discovered and completely anticipated the modern theory of the approximation of interest to the marginal productivity of capital. A resolute opponent of the wage-fund theory, Jevons was amongst the first to urge that wages depended on productivity. "The wages of a Wages working man," he said "are ultimately coincident with what he produces, after the deduction of rent, taxes, and the interest of capital." To Jevons, "rates of wages" were "governed by the same formal laws as rents," and wages themselves were "the effect not the cause of the value of the produce."

II

In estimating the value of Jevon's work we are fortunate in being able to compare him with Alfred Marshall, a much greater and abler man. If Jevons reminds us of a brilliant advocate who sets out to prove a case, Marshall resembles a great judge determined at all costs to learn the truth. Many, perhaps most men, will follow with interest the skilful presentation of one side of a case by a brilliant barrister, yet find it difficult to find much enthusiasm for the careful summing up in which the judge seeks to do justice to every aspect of the question he is called upon to decide. Jevons had got hold of Contrast
between Jevons
and Marshall

(1) The mathematical method

Its limitations

two facts: the first, that the application of mathematical methods to economics is often of the utmost service; the second, that we must take consumption as well as production into consideration, if we are to obtain a satisfactory theory of value. He failed to remember that mathematics is the most abstract of sciences, the furthest removed from concrete reality. Numbers can tell us much, they cannot tell us everything. We may count the numbers of men who enter a factory, we may measure the amount of work they do; but no arithmetic can tell us whether these men are satisfied with the conditions under which they work, or are standing on the verge of revolt. This principle applies in nearly every department of economic activity. If the mathematical method is to be used with profit, the symbols which it employs, the results which it achieves, must be tested at every turn by applying them to the concrete facts of actual life. Otherwise we merely confuse symbols with reality, and build a house of theory which is no more stable than one built with a pack of cards.

(2) Value determined by consumption

Jevons was right in urging that the consumer as well as the producer has a voice in determining value. But he was hampered at almost every step by the crudeness of the philosophy in which he had been trained. He habitually assumes, for instance, that "feeling" can be a "motive," an assumption that has been called in question by every writer of the "idealistic" school. His theory of wants, as subjective (though much less subtle and elaborate) as that of the Austrian school, leads him to picture a world almost as remote from reality as that in which his arch-enemy habitually moved. Jevons is every whit as "abstract" as Ricardo. So intensely does he fasten his eyes on one aspect of human nature that he ignores all others, and by ignoring them vitiates many of the conclusions he appears to reach. In spite of all that Jevons said of Ricardo, the fact remains that Ricardo's contributions to economics were, to say the very least, as valuable as his own. In spite of his bitter attacks on Mill, it is possible that Mill may be read when Jevons is forgotten. To use Marshall's famous figure it is a matter of indifference whether we say that the upper or the lower blade of a pair of scissors does the cutting, since everyone knows the cutting is done by both. The older economists had over-emphasised the part played by supply in determining value: Jevons went to the other extreme and over-emphasized demand. It was left to Marshall to form the needful synthesis and by giving each its proper place, to do justice to both.

CHAPTER VI

ALFRED MARSHALL (1842-1924)

WE began with a giant ; we end with a giant. Indeed, if the term be used in its narrower sense, Alfred Marshall is the greatest of English economists ; for Adam Smith was a Scotsman and David Ricardo was a Jew. In idle moments a man might amuse himself by seeking to draw comparisons between the Englishman, the Scotsman, and the Jew. For the most part, however, all such comparisons are vain. Nelson had to handle a fleet of wooden vessels, the modern admiral a fleet of ironclads. Nelson had no submarines, no aircraft, no torpedoes. Compared with modern artillery his cannon were but pop-guns. His problems were far more simple than those with which an admiral has to deal to-day. We cannot imagine how he would have handled them, yet despite our ignorance, we may cling to the belief that Nelson was the greatest sailor the world has seen. Adam Smith is like Nelson, Marshall like a great seaman of the present day. Yet this comparison does him less than justice ; for he designed, so to speak, some of the very ships he sailed. Those who knew him best are most emphatic in maintaining that if modern economics be compared to a complicated engine, it was Marshall who designed it, who at least developed it out of an engine of a much more simple type : that if modern economics be above all an organon, a set of delicate instruments, the most valuable of these instruments were made in Marshall's workshop. He was a great tool-maker, one of the very greatest. And yet Nelson remains Nelson and Adam Smith is still Adam Smith, the friend and equal of David Hume, our greatest philosopher, the equal and the friend of Edmund Gibbon, greatest of all English historians. Smith lived and moved amongst the great men of his time as Marshall never did. Yet, different as they were in many ways, in one respect they were alike. Each was a man of genius, the experience and training of each seemed purposely designed to make him the greatest economist of his time.

The modern economist must be a man of parts. He must know mathematics ; Marshall was a fine mathematician. He must know history ; Marshall was a fine historian. He owed much to Hegel's *Philosophy of History*, than which there is no book better calculated to give a man a bird's-eye view of the whole story of mankind. He owed much to the laborious efforts of the great economists of the German

historical school.* Even when he gives a Gilchrist lecture at Bristol on *Water as an element of National Wealth*, he reveals the trained historian; and when he writes the opening chapters of his *Industry and Trade*, he shows in what at first sight seem to be mere casual remarks, that no one ever had a firmer grip of economic history. The economist should know philosophy, should be able, that is, to take a bird's-eye view of thought, to know how one science is related to another. Marshall went to Germany in 1868 that he might learn to read Kant in the original. No one can read Kant seriously without being brought face to face with the deepest and darkest problems of existence. He stands alone the greatest (and perhaps the most difficult) thinker of modern times. "Kant, my guide," cries Marshall, "the only man I ever worshipped." Then too, the economist must be in touch with all the great movements, above all with the political and commercial movements, of his time. Marshall lived on terms of intimate friendship with "Labour leaders," he was keenly interested in the co-operative movement, he studied the system of protection in America. He was as public-spirited as Mill, as warmly devoted to the welfare of the working classes, as the noble paper on the *Future of the Working Classes*, which he read to the Reform Club at Cambridge in 1873, convincingly proves. "He told me once," says Professor Pigou,† "that in his early days, he had set himself to master the broad principles of all the mechanical operations performed in factories; that, after a time, when he visited a factory, he was able to guess correctly the wages that

*The German historical school. The work of the German school is twofold, critical and constructive. It has shown the weakness of the classical writers, who often took for granted that what was true of England in one period was equally true of all countries in all periods. At the same time they disbelieve in a philosophy of history. "We cannot," says Schmoller, "ever say whether the economic life of humanity possesses any element of unity or shows any traces of uniform development, or whether it is making for progress at all." The German school has given great attention to historical research, sociological studies, and practical problems. "On the whole the most important work that has been done on the continent in this (i.e. 19th) century, is that of Germany. While recognising the leadership of Adam Smith, the German economists have been irritated more than any others by what they have regarded as the insular narrowness and self-confidence of the Ricardian school. In particular, they resented the way in which the English advocates of Free Trade tacitly assumed that a proposition which had been established with regard to a manufacturing country, such as England was, could be carried over without modification to agricultural countries" Marshall's *Principles*, pp. 68-69.

†*Memorials of Alfred Marshall*, p. 95.

different workmen would be getting by watching them for a few moments, and that, when his guess was significantly wrong, there was always some special explanation." Nor was it only the artisan in whom he took an interest, part of the attraction service on the Royal Commission on Labour had for him was that it brought him into contact with employers of labour.

Finally, the great economist must be able to give adequate expression to his thoughts. As a writer, Marshall ranks with Mill and Adam Smith. It is true that his style is deceptive. To the young his books are like eels which escape the fingers of those who think they hold them fast. Only one who deliberately sets himself to make a critical analysis of his arguments, to paraphrase his words—and than this, we can testify from personal experience there is no finer introduction to economics—discovers how closely knit is his reasoning, how wonderful is his power to select the very phrase which most perfectly expresses his thought. Marshall was never a popular lecturer; in this respect he resembled his great contemporary Lord Kelvin. The average undergraduate found little in his lectures which was calculated to help him to pass examinations. To those, however, who understood him, he was an inspiration. He did even more to provide Universities with teachers of economics than Edward Caird* did to provide them with teachers of ethics and philosophy. His reputation was world-wide. To students of economics, of last generation and of this, he has been their greatest teacher. We know what he has done, we can only guess what he has left for other hands to do. Yet even now, we need not hesitate to say that after Adam Smith he is—with the doubtful exception of Ricardo—the greatest figure in economic science. He is to be regarded as more than a mere follower of Adam Smith; in some respects he is his peer.

I

Alfred Marshall was born in Clapham in 1842. At one time, Clapham was closely associated with that type of religion called "evangelical," and Marshall's father was a devoted adherent of that school of religious thought. At Cambridge, his son ceased to believe in most of the dogmas he had been taught, but if we use the word "religious" in the broadest

*Edward Caird, (1835-1908), Professor of Moral Philosophy at Glasgow, where he wielded an enormous influence, subsequently Master of Balliol College, Oxford. Edward Caird and T. H. Green were the most distinguished representatives in England of the Hegelian School of Philosophy.

and vaguest sense, he was a religious man all his days ; and though he soon ceased to desire to "convert" men to his way of thinking, he never ceased to live under the influence of Christian ideals, or, indeed, to have the sense of a high vocation. To him economics was no mere field for intellectual effort, it was an instrument by which he might serve his fellow men. Unlike Jevons, he never expressly said that he wanted to be a "powerful good" in the world, but the wish was never far from his thought.* At Merchant Taylors' school, where he received his earliest training, one master said that, "he had a genius for mathematics." From Merchant Taylors' he went on to Cambridge, where he was placed second in the list of wranglers, and became Fellow of St. John's College in 1865. For a short time he was a mathematical master at Clifton College ; but he soon returned to Cambridge, where he coached men who were reading for the mathematical tripos. At this time he intended to devote his time to research in physics, but having joined a Discussion Society, called the Grote Club, he met with men who were interested in a certain theological controversy which was exercising the minds of thoughtful men in those days, and determined to read philosophy. With this in view, he spent some time in Germany that he might study Kant. But finding little satisfaction in the maze of metaphysic he turned to ethics. He had not, however, been long engaged in the study of the theory of conduct before a friend suggested to him that if he knew something of economics, the science which dealt with human activities in everyday life, his work on ethics, would be more complete. He regarded his incursion into the domain of economics as a mere digression and looked forward to "a speedy return to the luxuriance of pure thought." "But," he said long afterwards (1917), "the more I studied economic science, the smaller appeared the knowledge which I had of it, in proportion to the knowledge which I needed ; and now, at the end of nearly half a century of almost exclusive study of it, I am conscious of more ignorance of it than I was at the beginning

* "Marshall was too anxious to do good. He had an inclination to under-value those intellectual parts of the subject (i.e. economics) which were not directly connected with human well-being, or the condition of the working classes or the like . . ."—J. M. Keynes in *Memorials of Alfred Marshall*, p. 36.

"Starting out then with the firm view that economic science is chiefly valuable, neither as an intellectual gymnastic nor even as a means of winning truth for its own sake, but as a handmaid of ethics and a servant of practice, Marshall resolutely set himself to mould his work along lines conforming to that ideal."—A. C. Pigou in *Memorials of Marshall*, p. 84.

of the study."* In 1868 he was made lecturer in moral science at St. John's College, a post he held till 1877. He spent his vacations in the Alps where some of his most famous and characteristic theories were thought out. Meanwhile in 1875, thanks to a legacy, he visited the United States. He travelled extensively in the east, went as far west as San Francisco, met professional economists at Yale and Harvard, but spent most of his time with men of affairs. "In Philadelphia," he wrote, "I spent many hours in conversation with the leading protectionists. And now I think, as soon as I have read some books they have recommended me to read, I shall really know the whole of their case; and I do not believe there is or ever has been another Englishman who could say the same." Professor Keynes tells us that Marshall maintained that as the result of this visit, he "was enabled to expect the coming supremacy of the United States, to know its causes and the directions it would take."†

In 1877, Marshall married a lecturer of Newnham College to whose ability and constant care he owed an ever increasing debt for forty-seven years. Immediately after his marriage he went to Bristol, where he was the first principal of University College. (But though he enjoyed lecturing on economics, he disliked the administrative side of his office, and had not the gifts required by the principal of a newly established college of awakening the practical sympathy of wealthy citizens in its work. In 1883, through Jowett's‡ influence, he was elected to a Fellowship at Balliol College, Oxford, and was made Lecturer in Political Economy to the selected candidates for the Indian Civil Service. At Oxford Marshall was happy and successful, but in January 1885, he returned to Cambridge as Professor of Political Economy, a position he held till 1908. From 1908 to his death in 1924 he lived in Cambridge.)

Marshall has two memorials. (1) In 1890 he issued a circular letter entitled, "Proposal to form an English Economic Association." The result of this was the founding of the Royal Economic Society (2) In 1903 a separate tripos in Economics and associated branches of Political Science, was established in Cambridge. This was chiefly due to Marshall's influence.

*For a similar statement from the lips of another and, as most would say, a greater Cambridge man, see the famous speech made by Lord Kelvin when he celebrated the 50th anniversary of his professorship at Glasgow University. Cf. also the famous words of Newton about the pebbles on the shore.

†*Memorials of Alfred Marshall*, p. 14.

‡Benjamin Jowett, (1817-1893), Master of Balliol, which under him became world-famous; liberal theologian; renowned for his translations of Plato.

"In a formal sense," say J. M. Keynes, "Marshall was founder of the Cambridge School of Economics."* "It is through his pupils," Keynes continues, "even more than his writings, that Marshall is the father of Economic Science as it exists in England to-day."†

"If I have helped in putting some young students on the way to grapple with the economic problems of the coming age, that is far more important than anything which I have been able to do myself." So Marshall wrote when the Royal Economic Society presented him with an address on his 80th birthday. That may be true; none the less Marshall left behind him two other memorials of imperishable worth. (1) The first the answers that he gave to Government Commissions (a) in 1886, *Answers to Questions on the subject of Currency and Prices*, circulated by the Royal Commission on the Depression of Trade; (b) in the following year he gave evidence before the Gold and Silver Commission‡ (his written answers occupy six and a half columns, the reports of his cross-examination, eighty-three folio pages); (c) in 1895 he gave evidence before the Royal Commission on the Aged Poor. The report of his examination extends to forty-three columns. (d) In 1899 he gave evidence before the Indian Currency Committee; the record of his examination fills thirty-four columns. (e) In the same year he submitted "Memoranda on Classification and Incidence of Imperial and Local Taxes." (f) In 1908 a "Memorandum on the Fiscal Policy of International Trade."

His chief works are *The Economics of Industry*, written in conjunction with his wife; *Principles of Economics* (1890); *Elements of Economics of Industry* (1892); *Industry and Trade* (1919); *Money, Credit and Commerce* (1923).

Why Marshall waited almost to the end of his life to give to the world views, many of which had been reached at least

*The Cambridge School enjoys a great reputation at the present time. Such reputations, however, are for the most part largely ephemeral. It is possible, indeed it seems probable, that the chief English school in the near future will be the London School of Economics. It is equally possible, however, that Harvard or Vienna may at some time or other enjoy for a season the reputation which Cambridge enjoys to-day. Great teachers like great thinkers are born, not made. In them no country, no university, can hope to retain a monopoly.

†*Memorials of Alfred Marshall*, p. 57; ib. 59.

‡"It was an odd state of affairs that one of the most fundamental parts of monetary theory should, for about a quarter of a century, have been available to students nowhere except embedded in the form of question and answer before a Government Commission interested in a transitory practical problem."

—*Remains*, p. 30.

forty years before, will always remain a problem. Those who are interested in this problem will find it carefully discussed by J. M. Keynes.*

II

"Classical economics," says Gustav Cassell, "has reached its highest perfection, and incorporated the most modern ideas in the works of Marshall."† Before we proceed to enlarge upon this statement, before we consider Marshall's specific contributions to economics, there are one or two points of a more general character which deserve attention. (1) In the first place no one can read Marshall's works without being impressed by the amazing extent of his knowledge. We turn to the index in one of his books and we find a list of hundreds of names: we know that each of these names represents a volume, in some cases several volumes; we see innumerable references to Government reports, to articles in reviews and encyclopædias, and the feeling grows stronger and stronger within us that Marshall is much the most learned of English economists, that he had read everything that seemed to have any bearing on his subject. It is this vast learning, worn as lightly as a glove, which enables him to put into a sentence the work of years and years of research. Two simple sentences—one might quote dozens of others—may serve to illustrate our meaning. "Popular history underrates the hardships of the people before the age of factories."‡ "The leading characteristic of English inventions has not been their ingenuity."|| His knowledge of books is equalled by his knowledge of the details of industry and commerce. No writer on economics since Adam Smith had such a wide knowledge of the everyday world, such a keen interest in the actual details of the life of the factory and the counting house. Like Adam Smith, his mind was stored with facts.

In the second place there was never man more quick to recognise the ability and to appreciate the work of others. His books are studded with such words as "masterly" "epoch-making." This explains the severity of his review of Jevons' *Theory of Political Economy*§ which to Marshall's mind treated Ricardo and Mill with less than the respect they deserved. In this book as we have seen, Jevons seeks to give—as he thought for the first time—a mathematical theory

**Memorials of Alfred Marshall*, pp. 18-28.

†Gustav Cassell, *The Theory of Social Economy*, English translation, p. 161.

‡*Industry and Trade*, p. 73. *Ib.*, p. 61. §*Academy*, April 1, 1872.

(1) His great learning

And wide knowledge of industrial and commercial life

(2) Appreciation of the work of others

of economics. Marshall ends his review with these scathing words: "The book before us would be improved if the mathematics were omitted, but the diagrams retained." Long afterwards he said of this review: "The genius which enabled Ricardo to tread his way safely through the most slippery paths of mathematical reasoning, though he had no aid from mathematical training, had made him one of my heroes; and my youthful loyalty to him boiled over when I read Jevons' *Theory*.* A great craftsman himself, he admired craftsmanship in others. "He did this work so thoroughly," he says of Adam Smith, "that later generations have made no great addition to it; though they have introduced many qualifications into it, and given it scientific cohesion."†

(3) Writes for laymen

"There is an understanding amongst economists," says Smart‡, "dating at least as far back as Adam Smith, that, in economic science and discussion, the ordinary terms of the industrial world are to be used in the sense generally attached to them in that industrial world." "In many respects," he adds, "this has been unfortunate." Marshall follows in the great English|| tradition of Adam Smith and Mill. This was one of the reasons that he^v relegated most of his diagrams—though he is the founder of the diagrammatic treatment of economics—to appendices. "When a man has cleared up his mind about a difficult economic question by mathematical reasoning, he generally finds it best to throw aside his mathematics and express what he has to say in language that is understood of the people."§ We have seen that anyone who wishes to grasp the full significance of Marshall's words, must read them over and over again; but no one who is willing to take sufficient pains can fail to understand what he has to say.¶

**Memorials of Alfred Marshall*, 99, 100.

†*Industry and Trade*, p. 45.

‡Introduction to *The Theory of Value*, p. 1.

||I do not believe that this is characteristic of German writing, cf. Menger's *Grundsätze*. Dr. Smart once complained bitterly to me of the difficulty he found in translating the Austrians.

§Marshall in the Academy, 11th June 1881, quoted from *Papers relating to Political Economy*, by Professor F. Y. Edgeworth.

¶*Memorials of Alfred Marshall*, p. 82: "The first time one reads the *Principles* one is very apt to think that it is all perfectly obvious. The second time one has glimpses of the fact that one does not understand it at all. If then one reads some other book on the same subject and comes back to it, one discovers at the third or fourth reading that in these platitudinous sentences difficulties are faced and solved that elsewhere are not perceived at all or are slurred over. One discovers behind the smooth sentences, which hide it like a facade, an engine of polished steel."

Marshall had a habit of choosing certain pregnant sayings as mottoes for his works. The motto of his *Principles* was *Natura non facit saltum*, i.e. economic evolution is gradual and continuous on each of its numberless routes. The motto of his *Industry and Trade* was "The many in the one, the one in the many." For as he says in his preface, "many tendencies have gone to the making of each industry and each economic institution . . . And conversely, almost every important tendency is so far modified by the conditions under which it operates, that an exhaustive study of it may need to range over many fields of work." There was another motto which he never expressly used, which, none the less, was never absent from his mind, "Man is the measure of all things." In the last resort, economics is a study of man. "So," says Professor Pigou,* "economics for him was a handmaid to ethics, not an end in itself, but a means to a further end, an instrument, by the perfecting of which it might be possible to better the conditions of human life." Marshall's success in handling the theory of wages, says Edgeworth,† was largely due to his sympathy with the wage earners. To use one of his own metaphors, his study of industrial life was not like "the exercises of a chess-player without a sigh for the knights or pawns which may be sacrificed." "I have devoted myself," he said in giving evidence before the Royal Commission on the Aged Poor (1893) "for the last twenty-five years to the problem of poverty; and very little of my work has been devoted to any inquiry which does not bear upon that."

It is now time to consider more closely the great changes which Marshall effected in the treatment of economic science. Broadly speaking, we may say that these were two. In the first place, he did justice for the first time within the sphere of pure economic theory, to the teaching of the "historical school"; in the second place, he reached a doctrine of value which brought into harmony the divergent views of the English school and those of Jevons and the Austrians. In other words, he was the first to harmonise the conception of value which is reached by starting from a study of production with that which is obtained by starting from that of consumption.

We have seen that Marshall was profoundly influenced by reading Hegel. Now Hegel, as the Master of Balliol says,‡ "was the founder of the great historical method of the 19th century to which all the sociological studies are now committed."

*A. C. Pigou in *Memorials of Alfred Marshall*, p. 86.

†*Memorials*, p. 70.

‡*Karl Marx's Capital*, Lindsay.

(4) "Man, the measure of all things"

The new treatment

(1) Idea of development

It was due to Hegel that a marked characteristic of all such inquiries came to be a constant endeavour to see institutions in the light of their history, a belief in evolution. That conception has been applied to one department of human study after another, and has dominated the century."

Marshall makes constant use of the idea of "development" or "evolution." He does more. The old English economists had looked at man chiefly from the psychological standpoint. They spoke of the "economic man" assumed that what he was in their time he had always been. "With the driest *naïveté* says Marx of Bentham,* "he takes the modern shopkeeper, especially the English shopkeeper, as the normal man." The great school of German economists who attacked this doctrine of what they termed "Smithianismus" had insisted that an analysis of social conditions in one century did not necessarily hold good of social conditions in another. Under the influence of Comte, Mill felt this, but as we have seen, he never succeeded in harmonising the view of man presented by the English psychology of the 18th century with the view of man presented by the evolutionary school in the 19th century. Marshall, on the other hand, did justice at once to the truth in the views of early English economists and to the truth in the statements made by German economists of the historical school. In him we see united the merits of induction and deduction. Not in vain did he take as his motto, "The many in the one and the one in the many."

Reconciles the deductive and the historical schools

(2) Theory of value determined by production and consumption

In the second place, as every writer of every text-book feels constrained to emphasise, Marshall was the first to do equal justice to the teaching of the older economists and to the views of Jevons and the writers of what is called the Austrian school. To Marshall, Jevons was as one-sided as, and much more wrong-headed than, Ricardo. It seems a simple thing to say that "efforts" and "wants" must balance: but it took a Marshall to say it. The English school insisted that value depends on the amount of effort expended in manufacture, the Austrians replied that value depends on the degree of want felt by a purchaser. In Marshall's system, justice is done for the first time to the truth in these rival contentions. Both views are one-sided aspects of truth. When the scissors cut it is idle to ask whether the cutting is done by the top blade or the bottom blade, it is done by both.

Mr. Keynes has given a lucid account of the great contributions Marshall made to monetary theory.† The reader cannot

*Marx's *Capital*, 622. †In *Remains of Alfred Marshall*, pp. 29-33, ib. 42, 47.

do better than turn to the same authority for an equally lucid account of those distinctive ideas by which Marshall enriched the science of economics. We merely mention (1) "Substitution at the margin" (*Principles*, Book VI, cp. xi, par. 5); (2) "The element of time as a factor in economic analysis" (see *Economics of Industry*, cp. v, 228-235); (3) "Quasi-Rent, applied to capital (ib. 395) labour (ib. 388-9) businesses (ib. 312-3, 339-41, 386)." Of the distinction between rent and quasi-rent, Edgeworth* says: "A distinction which perhaps will prove as important as the discovery of the principle of rent itself." (4) "Representative Firm" (*Economics of Industry*, pp. 200, 219); (5) "Consumer's Rent" (*Economics of Industry*, 94, 247-9); (6) "Monopoly" (*Economics of Industry*, 247-9); (7) "Elasticity of Demand" (*Economics of Industry*, 84); (8) "External and Internal Economies" (*Economics of Industry*, 170). "With the Conceptions associated with the words quasi-rent, representative firm, external and internal economies, consumers' surplus, elasticity of demand, he has built a structure," says Pigou, "as different from anything known before as a modern locomotive is different from Stephenson's 'Rocket.' It is in this kind of building whether in the analysis of value generally or of money, or of foreign trade, that he is supreme. Skilled and tireless user of tools as he was, it is as a maker of tools that he, alone among English economists, stands the companion and the equal of Adam Smith and of Ricardo."†

**Papers relating to Political Economy*, Vol. III, p. 10.

†Memorials of Alfred Marshall, p. 87.

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